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THE UNIVERSITY OF ALBERTA

PERCEPTIONS OF NURSING EDUCATION HELD BY MALE NURSING STUDENTS

by

GARY D. OKRAINEC

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
MASTER OF EDUCATION
IN
ADULT AND HIGHER EDUCATION

EDMONTON ALBERTA
SPRING 1989

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "The Perceptions of Nursing Education Held by Male Nursing Students" submitted by Gary Okrainec in partial fulfillment of the requirements for the degree of Master of Education in Adult and Higher Education.

....James M Small.....

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Date: april 12, 1989

ABSTRACT

The purpose of this study was to examine the perceptions of nursing education held by male nursing students enrolled in 13 basic nursing programs in Alberta, in September 1987. Female nursing students, equal to the males by type and year of nursing program, were included for comparative purposes. Questionnaires containing useable data were returned by 117 males (71.3%) and 121 females (73.7%). The major findings of this study include the following:

1. Male nursing students tended to be in their mid-twenties, raised in urban areas, from lower to middle class backgrounds and with a large percentage having postsecondary education and employment histories prior to entering nursing education.

2. Male students perceived nursing education to be challenging and interesting. The subjects of greatest interest included anatomy and physiology, surgical nursing and disease pathophysiology. Clinical nursing was perceived as more interesting than classroom theory.

3. Career aspirations included acute care specialty areas (emergency, adult intensive care and operating room), nursing administration and nursing education. More males than females perceived themselves to be working permanently full-time ten years after graduation.

4. Male students were generally satisfied with their nursing education--particularly, with their relationship with nursing instructors and peers and the length of their program.

5. Male nursing students felt that male and female nurses were similar with respect to various personality characteristics.

6. Differences between male and female nursing students were evident in four areas: demographic characteristics; course interests; career aspirations and goals; and the image of male and female nurses.

Recommendations were suggested corresponding to the areas of nursing education, practice and research.

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CHAPTER 1

STATEMENT OF THE PROBLEM AND ITS SIGNIFICANCE

In Canada, nursing education has traditionally been a female discipline with only a small percentage of male nursing students (Robson, 1964; Canadian Nurses Association, 1968). As a profession which emphasizes the caring and nurturing qualities of its members, nursing historically has attracted more females than males (Johnston, 1987). Since few males have entered nursing education in the past, nursing has remained an occupation of low male visibility (Robson, 1964; Canadian Nurses Association, 1974).

Vaz (1968) hypothesized that nursing was rarely selected by males because nursing was not perceived as a masculine occupation. Silver and McAtee (1972) indicated that the nature of the nursing role was not consistent with male role stereotypes and therefore was not attractive to males. Bush (1976) and Lawrence (1978) suggested that the lack of male recruits into nursing education was a result of negative attitudes held by society toward males who enter traditional female occupations.

Although the percentage of male nursing students in Canada has remained small relative to female nursing students, a trend toward larger enrollments of males in nursing education has been evident over the last three decades (Robson, 1964; Canadian Nurses Association, 1974; Canadian Nurses Association, 1986). The latest national statistics on nursing students indicated that 2,205 students, or about 9.5 percent of the diploma nursing enrollments, were male (Canadian Nurses Association, 1986). This represents an increase in male nursing students of about 2,450 percent since 1961 (Robson, 1964;

Canadian Nurses Association, 1986). Some conditions contributing to the increased numbers of males in nursing education have been identified--including decreased occupational stereotyping, increased salary, job security and employment opportunities in nursing (Williams, 1973; Phillips & Phillips, 1983; Kerr & MacPhail, 1988).

Although more males are in nursing than in the past, most of the research on nurses and nursing students has focused on the female members of this occupational group (Hughes et al., 1958; Muhlenkamp and Parsons, 1972; Schwirian, 1984). Few research studies have been conducted on male nursing students (Davis-Martin, 1984). Consequently, there appears to be a need to examine nursing education from the male perspective.

Purpose of the Study

The purpose of this study was to determine the perceptions of nursing education held by male nursing students by focusing on their attitudes, interests and level of satisfaction with nursing education. Female nursing students were included for comparative purposes.

Research Questions

This study addressed the following questions:

1. What are the demographic characteristics of male nursing students?
2. What interests do male nursing students express in nursing education?
3. What attitudes do male nursing students hold toward nursing as a career?

4. What is the level of satisfaction of male nursing students with nursing education?

5. What image of themselves as nurses is held by male nursing students?

6. Do male nursing students differ from a comparative sample of female nursing students in any of the above characteristics?

Importance of the Study

No Canadian research studies on males in nursing education were found. Thus, the results of this study may provide a stimulus for future research studies on males in the nursing profession. In addition, the results of this study may be of benefit to career counselors and admission officers for nursing schools in Alberta by providing insight into the career orientation of male nursing students. Likewise, as males will continue to enter nursing education in the future, their educational needs may warrant additional consideration in nursing curriculum development and instruction by schools of nursing.

Delimitations

This study was restricted to male nursing students enrolled in nursing education in the province of Alberta during 1987-1988, and to a comparison sample of female nursing students selected to match the males by type of nursing school attended and year of program. Thus, the female sample can not be considered representative of the female nursing student population in Alberta.

Overview of the Study

Chapter 2 presents an overview of the literature on nursing education in Canada, including references to males in nursing and nursing education. The methodology used in conducting the study, as well as the data analysis are described in Chapters 3 and 4 respectively. Chapter 5 presents a discussion of the findings, while Chapter 6 presents the summary, conclusions and recommendations pertaining to males in nursing education.

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter presents a literature review on nursing education in Canada, followed by a review of the literature on themes related to males in nursing. The purpose of this review is to provide a base for inquiry into males in nursing education. Thus, the review of the literature on nursing education concentrates on the following areas: the history of nursing education in Canada; the baccalaureate entry to practice issue; the current pattern of nursing education in Canada and Alberta; male enrollments and graduations in nursing education; historical perspectives on males as nurses; and a review of six major themes on males in nursing education

Nursing Education

Nursing has long been considered both an art and a science (Roy, 1976). According to Roy (1976) and Orem (1980), nursing education involves the science of health and the art of caring. Appropriate knowledge from the humanities and sciences as well as nursing theory, philosophy and practice remain common to most nursing schools' curricula (Potter and Perry, 1985).

Orem (1980) described nursing as a human service--something produced by nurses when helping human beings. Peplau (1952) considered nursing as a human relationship between an individual who is sick, or in need of health services, and a nurse who is educated to recognize and respond to the need for help. The International Council of Nurses (1972, p. 2) defined the function of nurses as "assisting individuals sick or well, in the performance of those activities contributing to health or its recovery ... that [people] would perform unaided if [they] had the necessary strength, will or knowledge." Thus, through nursing education, individuals learn how to provide nursing services while caring for people.

Throughout its history, the nursing profession in Canada has been proactive--shaping its own identity. The changes which occurred in nursing education were derived from a variety of sources--educational patterns and ideas from Britain and the United States--backed by research studies and investigation in Canada and the United States (Mussallem, 1964). The following section outlines specific milestones related to the education of nurses in Canada.

Development of Nursing Education in Canada

The establishment of present day nursing education in Canada occurred as a result of four major developments in nursing over the past century: the early establishment and growth of hospital schools of nursing; the establishment and enforcement of educational standards by provincial nursing associations; research studies on nursing education; and the establishment and growth of nursing education in universities.

Establishment and growth of hospital schools of nursing.

Although nursing in some form had existed for thousands of years, nursing education in its modern form originated in 1860 with the establishment of a model school of nursing at St. Thomas Hospital in London, England (Jamieson et al., 1968). In a program planned by Florence Nightingale, students were offered one year of instruction in the medical sciences, as well as supervised clinical experience.

The success of this Nightingale school, including its concept of providing a definite plan for nursing education, spread throughout the world during the latter half of the nineteenth century (Jamieson et al., 1968). In 1873, the earliest North American schools originated at the Bellevue Hospital in New York City, the Massachusetts General Hospital in Boston and at the New Haven Hospital in New Haven, Connecticut (Kelly, 1975). One year later, Canada's first school of nursing was established in connection with the General and Marine Hospital at St. Catharines, Ontario (Canadian Nurses Association, 1968).

It took several years, however, before other hospital schools of nursing were established in Canada. With the opening of the Toronto General Hospital in 1881, the Winnipeg General Hospital in 1887 and the General Public Hospital in Saint John, New Brunswick in 1888, hospital schools of nursing in Canada began to proliferate (Canadian Nurses Association, 1968). By 1903, all Canadian provinces had schools of nursing, and by 1909, there were 70 nursing programs across Canada (Mussallem, 1964). The number of hospital schools in Canada expanded to 220 by 1930 (Canadian Nurses Association, 1968).

Hospitals encouraged the development of nursing schools, because in those early years, such schools represented an almost free supply of nursing labor (Mussallem, 1964). The nursing education offered was largely of the apprenticeship type. Although the curriculum consisted of some theory and classroom instruction, for the most part, students learned by performing actual patient care under the strict conditions of the school and the hospital (Mussallem, 1964). The types of credentials received by the nursing graduates during the 1800s were not described in the literature. However, reference was made to diploma nursing certification for graduates of hospital schools of nursing in 1917 (Canadian Nurses Association, 1968).

Establishment and enforcement of educational standards by provincial nursing associations. With the establishment of provincial nursing associations in all Canadian provinces by 1914, except Prince Edward Island, provincial standards for student admission and nursing school curriculum requirements were enacted. In addition, with the establishment of the Canadian National Association of Trained Nurses in 1908, which became the Canadian Nurses Association in 1924, advisory facilities on nursing education were made available to all provincial nursing associations (Canadian Nurses Association, 1968).

During the first decade of the 1900s, nursing registration examinations were also instituted by the provincial nursing associations. In each province, graduates from a school of nursing could become registered with their provincial nursing association and licenced to practice in their province by successfully passing a standardized provincial nursing examination (Canadian Nurses Association, 1968).

By 1947, however, dissatisfaction and difficulties with provincially prepared examinations prompted eight provincial associations to use nursing examinations from the United States--the National League for Nursing State Board Examinations (Canadian Nurses Association, 1968). In 1967, the Canadian Nurses Association and eight provincial nursing associations decided to form a Canadian testing service that would provide a national registration examination to all nursing graduates in Canada (Canadian Nurses Association, 1968). The first examinations prepared by the Canadian Nurses Association Testing Service (CNATS) were written in August, 1970 (Canadian Nurses Association, 1982). In 1980, a series of comprehensive examinations were developed to replace the standardized examinations developed a decade earlier (Canadian Nurses Association, 1981).

Research studies on nursing education. Between the early 1900s and the mid-1940s, changes in nursing education occurred as a result of investigative research by individuals in both the United States and Canada (Mussallem, 1964). Studies on schools of nursing (Goldmark, 1923; National League of Nursing Education, 1936; Nutting, 1926) brought forth information on student nurse exploitation by hospitals and the need for more formal nursing theory and organized clinical experience in nursing education. Nursing school curriculum studies (Canadian Nurses Association, 1936; National League of Nursing Education, 1917) identified specific areas of knowledge in which student nurses should be prepared--surgical nursing, medical nursing, obstetrics and pediatics. Although most of the studies were from the United States, the research results were incorporated into nursing programs in Canada (Mussallem, 1964).

In 1932, the first Canadian survey on nursing education resulted in the release of the Weir Report (Mussallem, 1964). Among the suggestions made by this report, was a recommendation to change the system of nursing education by removing nursing schools from hospital control and to bring the education of nurses into the general educational system of each province. Many years elapsed, however, before Canadian provinces made any attempt to establish programs at the diploma level which were outside of hospital control (Mussallem, 1964). It was not until 1946 that a two year diploma nursing program, independent of a hospital, was established at the Metropolitan School of Nursing in Windsor, Ontario (Canadian Nurses Association, 1968).

With the advent of community colleges in the 1960s, many provinces moved diploma nursing education from hospital schools to community colleges (Mussallem, 1964). The first diploma nursing program to appear at a college was offered by the Ryerson Institute of Technology in Toronto, Ontario in 1963 (Canadian Nurses Association, 1969). Five years later, there were 26 college diploma nursing programs in Canada (Canadian Nurses Association, 1969).

Establishment and growth of nursing programs in universities. With the expansion of health care services in Canada and with the requirements for greater leadership in nursing itself, nursing programs were established at universities (Canadian Nurses Association, 1968). The first nursing degree program in Canada was developed at the University of British Columbia in 1919 (Mussallem, 1964). This was a five year program composed of three years of university study and two years of nursing training at the Vancouver General Hospital (Canadian Nurses Association, 1968).

By 1920, one year post-nursing courses in teaching and supervision and in public health nursing were offered to diploma nurses by Dalhousie University in Halifax, the University of Toronto and McGill University in Montreal. These courses were accessible and provided advanced nursing education to a large number of nurses (Canadian Nurses Association, 1968).

In 1933, the first baccalaureate degree program in nursing offered entirely at a university without hospital input or control, was established at the University of Toronto. Twenty nine years later, the University of Montreal became the first university to establish a faculty of nursing (Canadian Nurses Association, 1968).

By 1960, two Canadian universities had developed graduate nursing education at the master's degree level--the University of Western Ontario and McGill University (Mussallem, 1964). As of September 1988, the faculty of nursing at the University of Alberta began a doctorate degree program in nursing. This represents the first Ph.D. program in nursing in Canada.

Baccalaureate Entry to Practice Issue--EP2000

One current issue in nursing education and practice is the proposal that the minimal educational requirement for entry into nursing practice by the year 2000 be a baccalaureate degree in nursing (Canadian Nurses Association, 1982). The Canadian Nurses Association endorsed this proposal in 1982 and most provincial and territorial nursing associations have adopted this position (Raab, 1985).

The case for baccalaureate preparation stems from the changing degree of knowledge required of nurses in providing health care to the public (Canadian Nurses Association, 1982). Nurses entering the profession need critical thinking and decision making skills to integrate knowledge and technologies into daily nursing practice

(Canadian Nurses Association, 1982). Baccalaureate preparation is thought to result in a more qualified nurse, as the education in such programs prepares the graduate to function in both hospital and community settings, whereas diploma nursing education prepares its graduate for functioning primarily in the hospital setting (Kelly, 1981).

On the other side of the issue, some nurses who hold hospital or college diplomas may feel their job security jeopardized by the EP2000 position, in spite of a clause which states that those nurses already in the profession would never be required to obtain new minimum qualifications (Raab, 1985). In addition, there is doubt that the quality of nursing care would actually improve with advanced educational preparation (Raab, 1985). Although baccalaureate preparation would be beneficial to the nurse in terms of the broader perspective gained through this type of program, it is not clear that it is a necessary requirement in order to work in a hospital setting where many of the nursing functions are task oriented. Hospital diploma education may prepare the nurse sufficiently to be able to function in this capacity (Kelly, 1981). For these reasons, and others--including labor force needs and cost implications, all provincial governments have expressed their opposition to EP2000. Thus, providing education at the baccalaureate level for nurses presents numerous unanswered questions at present. Where will the money come from to educate this future professional group? Will enrollments into nursing education change? How great will the need be for qualified nursing professors? As the year 2000 approaches, more debate on the EP2000 issue will ensue.

Current Patterns of Nursing Education

Nursing students in Canada obtain basic nursing education from either a diploma or baccalaureate degree nursing program. These programs range from two to four years depending on the type of program--colleges, regional and independent schools of nursing, hospital schools or universities. Diploma nurses may obtain a post-basic baccalaureate degree in nursing with two to three years of university study, while master's degree programs in nursing are open to nurses who have attained a baccalaureate nursing education.

Canada. In 1986, there were 111 diploma schools of nursing in Canada, including 84 community colleges, 21 hospital schools and six regional and independent schools of nursing (Statistics Canada, 1988). All diploma nursing programs in Quebec--42, Ontario--23 and Saskatchewan--2 were located in community colleges, whereas in Alberta--11, British Columbia--10, Nova Scotia--7, Manitoba--6 and Newfoundland--4 there were both hospital schools of nursing and community colleges (Statistics Canada, 1988). In New Brunswick--5 and Prince Edward Island--1, all diploma programs were located in regional and independent schools of nursing (Statistics Canada, 1988).

The 1986 student enrollment in diploma nursing schools (24,411) was about fourteen percent higher than in 1982 (Statistics Canada, 1988). A total of 6,762 students graduated with nursing diplomas in 1986. This was comparable to the number of diploma nursing graduates over the preceding four year period (Statistics Canada, 1988).

At least one university school of nursing existed in all provinces, with the exception of Prince Edward Island (Statistics Canada, 1988). Of the 60 nursing degree programs offered by 27 Canadian universities, 21 were basic baccalaureate programs, 28 programs were at the post-basic baccalaureate level and 11 were master's degree programs. A total of 10,365 students were enrolled in university nursing degree programs in 1986. About 52 percent were in basic baccalaureate programs, while 42 percent were post-basic baccalaureate students. Six percent of all nursing students were in master of nursing programs (Statistics Canada, 1988).

From 1976 to 1986, a trend toward higher education in nursing was evidenced by the increase in the number of students enrolled in degree programs as a proportion of the total nursing enrollment. In 1986, 28 percent of the students were studying for a nursing degree compared to 20 percent ten years earlier. The percentage of nursing students who graduated with a nursing degree increased from about 14 percent in 1976 to 23 percent in 1986 (Statistics Canada, 1988).

Alberta. A total of 2,080 students were enrolled in diploma nursing programs in 1986, while university enrollments included 1,237 students--588 were in basic baccalaureate degree programs, 561 were post-basic baccalaureate students and 88 were master's degree students (Statistics Canada, 1988). Altogether, nursing students in Alberta accounted for about nine percent of the nursing enrollments in Canada. Compared to other Canadian provinces, Alberta had the third largest number of students enrolled at all levels of nursing education next to Ontario and Quebec (Statistics Canada, 1988).

Males in Nursing and Nursing Education

Traditionally, nursing has been characterized as a female profession (Davis-Martin, 1984). In spite of this tradition, nursing is the occupation of choice for a small percentage of males. In 1987, male nurses in Canada numbered 5,864--2.7 percent of the nursing labor force (Statistics Canada, 1987). In Alberta, 318 males represented about 1.5 percent of all nurses registered with the Alberta Association of Registered Nurses in September, 1988 (A.A.R.N., 1988). In comparison to other health care occupations, the registered male nurse represents one of the smallest professional groups if segregated by gender (Health Manpower Directorate, 1985).

In 1961, the earliest year for statistical data on Canadian male nursing students, 90 males out of 21,858 nursing students--0.41 percent were enrolled in diploma nursing education (Robson, 1964). According to the latest national statistics, 2,205 male students represented about 9.5 percent of all diploma nursing students in 1985 (Canadian Nurses Association, 1986). Although male nursing students remain in a minority position in diploma nursing education, the data indicate an increase in male diploma nursing students of about 2,450 percent from 1961 to 1985. Data on university student enrollments in nursing were not separated by gender in the literature.

Male Nursing Student Enrollments and Graduations in Canada

As shown in Table 2.1, the number of male students enrolled in diploma nursing education showed a gradual increase over the last two decades. Male nursing enrollments averaged about 1.2 percent of all diploma nursing student enrollments during the 1960s--ranging from

Table 2.1

Enrollments and Graduations of Male Students in Diploma Schools of Nursing in Canada--1963 to 1985

	ENROLLMENTS		GRADUATIONS	
YEAR	Number	Percentage	Number	Percentage
1963	214	0.9	23	0.3
1964	289	1.2	40	0.6
1965	336	1.4	43	0.6
1966	261	1.1	90	1.3
1967	289	1.2	110	1.5
1968	315	1.3	98	1.3
1969	435	1.4	73	0.9
1970	324	1.6	98	1.2
1971	648	1.2	112	1.1
1972	749	2.8	118	1.2
1973	703	3.1	161	1.8
1974	710	3.3	272	2.9
1975	776	3.1	230	2.7
1976	837	3.6	262	2.9
1977	860	4.0	292	3.4
1978	945	4.8	222	3.0
1979	1088	5.7	267	4.0
1980	1161	6.0	240	3.6
1981	1294	6.5	291	4.5
1982	1424	6.7	311	4.7
1983	1631	7.3	290	4.3
1984	1772	7.3	316	4.6
1985	2205	9.5	411	5.7

Sources:

Canadian Nurses Association, 1968, p. 73.
Canadian Nurses Association, 1974, p. 86.
Canadian Nurses Association, 1984, p. 69.
Canadian Nurses Association, 1986, p. 53.

0.9 percent in 1963 to 1.4 percent in 1969. In contrast to the sixties, in which only minor fluctuations occurred in male enrollments, the decade of the seventies witnessed an increase in male enrollments of about 0.4 percent yearly--1.6 percent in 1970 to 5.7 percent in 1979. During the 1980s, male student enrollments continued to increase from 6.0 percent in 1980 to 9.5 percent in 1985.

The percentage of male graduates from diploma schools of nursing in Canada showed similar increases from 1963 to 1985, reflecting a trend toward larger numbers of males into diploma nursing education (Table 2.1). In the 1960s, males averaged about 0.9 percent of all diploma nursing graduates. The decade of the seventies had a 2.8 percent increase in male graduates ranging from 1.2 percent in 1970 compared to 4.0 percent in 1979. The first half of the 1980s showed a percentage change in male graduates of 2.1 percent, ranging from 3.6 percent in 1980 to 5.7 percent in 1985. Although the actual numbers of male students have remained small relative to female students, the statistics have indicated a trend toward larger male enrollments and graduations in diploma schools of nursing in Canada.

Interestingly, the male graduation rates fall behind the male enrollment rates for nearly all years (Table 2.1). This may be suggestive of a large attrition rate for males in diploma nursing education in Canada. However, no data on male nursing student attrition rates in Canada were found in the literature.

Historical Perspectives on Males in Nursing

Men who practice nursing share in a history of males caring for fellow human beings that dates back to ancient civilizations

(Johnston, 1987). This section examines the history of males in nursing in four periods: ancient times, the middle ages, the nineteenth century and the twentieth century. In the intervening years, little was written on males in nursing.

Ancient times. In most ancient civilizations--Egypt, Greece and Rome--from about 2000 B.C. to 100 B.C., the sick were cared for by male and female servants, attendants and slaves. According to Kelly (1975), physicians and priests treated human illness with herbal remedies, proper diet and hygiene practices, prayer, magic and primitive surgical techniques, while the male and female attendants provided physical comfort and post-treatment care to the sick. Whether these attendants were apprentice physicians or practicing nurses is not clear in the literature. As well, the actual duties performed by these individuals and their level of training is not discussed in any detail.

Pre-Christian India, from about 800 B.C. to about 600 B.C., was the context of the first hospitals, and the first group of individuals to staff these were men (Kelly, 1975). While medical practices in India included the use of surgical techniques, drugs and other pharmaceutical preparations, the male hospital attendants were described as performing basic nursing functions for the sick similar to those practiced today--bathing and comforting patients (Kelly, 1975). However, the training and status of these ancient hospital attendants are not discussed in the literature.

Middle ages. Historical accounts of nursing during the Middle Ages provide descriptions that identify men as providers of a nursing service. Between the eleventh and mid-thirteenth century, three nursing orders of military knights, known as the Knight Hospitallers, were established (Kelly, 1975). According to Kelly (1975), the Teutonic Knights, the first military order of male nurses, had two major responsibilities during the Crusades--they provided care to wounded soldiers on the battlefield and protected those soldiers who could not protect themselves. The Knights of Lazarus, the second group of Hospitallers, provided help to people afficted with leprosy. The third group, the Order of St. John of Jerusalem, cared for casualities returning from the battlefields of the Crusades. The literature, however, did not describe how the Knight Hospitallers were recruited, trained and organized in the performance of nursing care. During this period, the practices of medicine were still at an emergent stage. According to Kelly (1975), the Hospitallers worked with the physician to provide care to the sick and injured.

In the Middle Ages, religious orders of monks also performed duties associated with caring for the sick--the Brothers of St. Anthony, the Order of St. Francis and the Alexian Brotherhood (Kelly, 1975). These groups of religious men established hospitals and provided care to individuals with serious communicable diseases including the plague, leprosy and erysipelas. Again, the literature did not describe the types of nursing care provided by these monks, nor the amount of medical training received. During the centuries which followed, nursing of the sick continued in a way similar to that established during the middle ages, with both male and female attendants and members of religious orders assuming responsibilities for the care of the injured and sick (Hamilton, 1979).

Nineteenth century. With the acceptance of Nightingale's knowledge and nursing skill by the Victorian society in England during the 1860s, nursing began to be regarded as a dignified female occupation (Makin, 1955). Few males were given access to formal nursing education and male interest in nursing as a vocation declined (Makin, 1955). Thus, by the mid-nineteenth century, nursing itself was not perceived as a viable career alternative for men, mainly because of its female role connotations (Johnston, 1987).

However, as hospitals in the United States and Canada expanded during the mid-1800s, a greater number of female and male personnel were required to staff these institutions (Mussallem, 1964). Male attendants were mainly employed by hospitals to perform duties necessary for the care of male psychiatric patients (Mericle, 1983). As the science of psychiatry was in its infancy, often the only available treatment for psychiatric patients was the use of physical and mechanical restraints. For this reason, male attendants largely performed physical duties associated with controlling aggressive patients and protecting female staff.

By the late 1800s, psychiatric illness was perceived as having the same legitamacy as other diseases (Kelly, 1975). Thus, persons affícted with psychiatric disorders were diagnosed medically and treated through medical means. This change in medical thought necessitated the need for greater numbers of trained hospital personnel to provide treatments and proper nursing care to these patients.

According to Mericle (1983), the McLean Hospital--which was established in 1882--became one of the first psychiatric institutions that attempted to employ nurses on a large scale. However, due to serious shortages of trained personnel, large scale employment of a trained nursing staff was not achieved. Faced with this dilemma, the superintendent of the McLean Hospital and his senior nurse proposed that a psychiatric nursing school would help meet the hospital's staffing requirements and developed a curriculum for a psychiatric nursing school to be associated with this hospital.

In 1886, the McLean Asylum Training School began to operate and the first class of 15 women and five men graduated in 1888 (Mericle, 1983). Initially, psychiatric nursing students were selected from the male and female attendant staff. A superintendent of nurses was appointed to supervise the program and to give lectures on physical training, massage, surgical nursing techniques and hydro-therapy. Female students were instructed in obstetrical nursing, while males were given classes on male urology dysfunctions. This marks one of the first attempts, according to the literature, to educate males for positions as nurses in North America. From this beginning, more psychiatric hospitals adopted this idea of extending formal educational opportunities in psychiatric nursing to men (Mericle, 1983). Thus, most of the males interested in a nursing career during the late 1800s entered schools associated with psychiatric nursing (Kerr and MacPhail, 1988). Psychiatric nursing was believed acceptable for males because they were physically more suited than females to deal with violent patients.

Twentieth century. No information on males in nursing during the early part of the twentieth century was found in the literature. By 1930, however, Makin (1955) indicated that 65 general and psychiatric hospitals in the United States had nursing programs for male nursing students. While psychiatric schools of nursing in the United States reported that 275 males accounted for about 11 percent of all psychiatric nursing students in 1930, 490 students or about 0.5 percent of all diploma nursing students in general hospitals were male (Brown, 1936, p. 8). These data indicate that males entered traditional hospital schools of nursing at some point prior to 1930 in the United States. Whether males, themselves, took the first initiatives to apply and gain access into nursing education in general hospitals, or whether nursing education directors decided that males were a potential source of recruits into nursing and encouraged their acceptance was not discussed. Nonetheless, by 1940, there was a combined total of 8,169 male nurses and nursing students in the United States providing general nursing care to patients (American Nurses Association, 1945).

In Canada, no information on males in nursing was found in the literature for the first half of the twentieth century. However by 1951, the earliest year for statistical data on male nurses in Canada, 138 males accounted for 0.33 percent of all registered nurses (Canadian Nurses Association, 1960).

During the 1960s, Robson (1964) indicated that only 25 out of 170 diploma nursing schools in Canada (14.7 percent) accepted male applicants. Many schools of nursing reported a willingness to accept male applicants, however, few males actively sought a nursing career. Those schools that refused males based their decision on the lack of appropriate residential accommodations (Robson, 1964).

During the 1960s and 1970s, of those nursing schools which accepted male students in Canada, some did not permit males to study obstetrical and gynecological nursing (Kerr and MacPhail, 1988). Social barriers may have existed that inhibited physical contact between male nurses and female patients (Johnston, 1987). Instead, male students carried out a clinical practicum in urology, caring for male patients, along with having the responsibility for learning all obstetrical theory for their nursing registration examinations (Kerr and MacPhail, 1988). The 1980s brought a period of gender acceptance in nursing. Male and female nursing students now receive the same opportunities, courses and clinical experiences with patients of both genders (Johnston, 1987).

Characteristics of Male Nursing Students

An examination of the literature revealed the prevalence of six major themes on male nursing students: demographic and personality characteristics of male nursing students; male students' attitudes toward nursing education; role strain in male nursing students; male obstetrical nursing experiences; and male withdrawal rates from schools of nursing.

Demographic Characteristics of Male Nursing Students

The earliest descriptive study found in the literature on males in nursing was conducted by Mannino (1963). Mannino surveyed 516 male nurses and male nursing students in 33 states. His analysis revealed no differentiation between the responses of male nursing students and male graduate nurses. Mannino's profile of males in nursing revealed that they were older (median age was 37.1), married (70.8 percent), had relatives in nursing (61.3 percent), had a median age of 21 upon entering nursing and served in the armed forces (69.3 percent). The most common reason for choosing nursing was the desire to help people. Most of the males would recommend nursing as a career to other males and most showed upward social mobility compared to their parents.

Brown and Stones (1971) interviewed 319 British male students in nursing education at 57 schools located throughout England and Wales. The findings indicated male students decided on a nursing career by their early twenties; they had previous work experience in health care; and they came from nursing family backgrounds. The intrinsic aspects of nursing, such as helping others and working with people, were reasons for entering nursing education.

Schoenmaker and Radosevich (1973) studied 33 male and 58 randomly selected female nursing students from one baccalaureate nursing program. The profile of the small sample of male students in this study indicated they were older, married and had more education and work experience in health care than the female students. Males indicated a strong preference for working in emergency, intensive care, surgery and psychiatry, while female preferences included pediatrics, public health and obstetrics. The female students were more apt to list excessive work pressures as a reason for leaving nursing education, while males identified curriculum deficiencies as their principal reason. Schoenmaker and Radosevich (1973) concluded that male students had a greater interest than female students in the technical functions of nursing and a preference for the critical care areas in nursing practice.

Williams (1973) used a mailed questionnaire to study characteristics of 273 male baccalaureate nursing students at 32 universities in 13 states. The findings of this study indicated that most of the students were from middle class backgrounds, were in their early twenties (median age was 23.4 years) and were married when they entered a school of nursing (58 percent). Most students had been reared in urban areas, had been employed in the health care field prior to nursing and first thought about a nursing career after graduation from high school. In addition, the male students aspired to careers in surgical nursing, intensive care nursing and nursing education.

Bush (1976) interviewed 10 males in nursing at one mid-western university--six nursing students and four graduate nurses. Although the sample was very small and confined to one nursing program, Bush (1976) reported findings very similar to those of Mannino (1963). Additionally, the respondents preferred to work in the specialty areas of urology and psychiatry while avoiding obstetrics and pediatrics.

The absence of comparative groups such as female nursing students, male college students or males from other occupations in all studies except Schoenmaker and Radosevich (1973), restricted discussion of the findings to only males in nursing. Variations unique to male nursing students cannot be identified from the data presented.

Personality Characteristics of Male Nursing Students

Aldag and Christensen (1967) investigated the personality characteristics of 116 male and female nursing and non-nursing college students using the Minnesota Multiphasic Personality Inventory (MMPI). They found that the personality profile of male nursing students was more similar to female nursing students than the profile of male college students to female college students. Both male and female nursing students displayed more traditionally feminine traits than their college counterparts. In addition, both genders of nursing students appeared more responsible and generous than male and female college students. Male and female nursing students were also identified as more dependent and less aggressive or rebellious than non-nursing college students of either gender.

Aldag (1970) examined the career interests of 580 male and female nursing and non-nursing college students using the Strong Vocational Interest Blank (SVIB). Males in nursing education were found to have career interests similar to female nursing students and general interests characterized as more feminine than did male college students. Thus, Aldag (1970) concluded that the interest measure for an occupation should receive the same if not more consideration than aptitude measures in predicting occupational choices.

Garvin (1976) compared the personal values of 34 male nursing students and 841 female nursing students over a three year period at one university with the national norms for male college students in the United States using the Allport-Vernon-Lindzey Study of Value Scale. This scale measured the relative importance of six basic interests to an individual: theoretical, economic, esthetic, social, political and religious. The findings showed that male nursing students scored higher than female nursing students on the theoretical scales and lower on the religious scales. According to Garvin (1976), the results indicated that male nursing students were more interested in the discovery of truth and in the empirical ordering of knowledge than were female nursing students. When comparing the data between groups, the values of male nursing students were more like female nursing students than male college students. He concluded that male nursing students maintain the high social value necessary to the nursing profession. In addition, male nursing students add their own personality characteristics of critical, rational and empirical interests to the nursing profession.

MacDonald (1977) administered the Hogan Empathy Scale to 60 students to determine if differences existed in the levels of empathy between male and female students in both nursing and non-nursing college programs. The findings indicated male nursing students had the highest empathy scores, while males not in nursing had the lowest. Male nursing students also had higher levels of empathy ratings than did female nursing students. MacDonald (1977) concluded that male students were well suited to a nursing career, perhaps more so than female students.

The research on the personalities of nursing students appears to depict male and female nursing students as being similar in their interests, values and personality characteristics, while male nursing students differ from their male peers in non-nursing college programs.

Male Attitudes Toward Nursing Education

The attitudes of nursing students toward nursing education were studied by Auster (1979). The sample consisted of 335 male and 508 female nursing students from 32 educational settings in the United States. The results indicated gender differences between the responses of male and female nursing students. A larger percentage of females than males found nursing school more difficult than they had anticipated, while both genders indicated nursing would be harder for males. In addition, more males than females never seriously thought about quitting their nursing education. More male students than female students felt their nursing instructors preferred to see only a very small percentage of males in nursing, however, no explanation was given by Auster (1979) for this finding.

The measures of course evaluations used by Auster (1979) indicated that males were generally more critical of the nursing curriculum. Males preferred such courses as anatomy, physiology, pharmacology and clinical practice, while females chose clinical practice, anatomy, surgical nursing and physiology. In addition, while both genders expressed favorable opinions about their nursing programs, more males than females were dissatisfied with nursing education. Auster (1979) concluded that males were not likely to staff the nursing profession in the same way as females.

Role Strain in Male Nursing Students

What problems do male nursing students experience in nursing? According to the literature (Segal, 1962; Greenberg & Levine, 1971; Silver & McAtee, 1972; Bush, 1976; Auster, 1979; Johnston, 1987), the major problem is role strain. Role strain can be briefly described as the difficulty of fulfilling culturally defined roles (Goode, 1960). For the male nursing student, being of the male gender in a traditional female occupation is a potential source of role strain (Auster, 1979). That is, it is often difficult to reconcile one's role as a male with one's role as a nurse (Greenberg and Levine, 1971).

Segal (1962) found that individuals who simultaneously occupy incongruent roles are likely to feel tensions that are not felt by people whose roles are congruent. Thus, Segal (1962) suggested that males who select a career in nursing may experience tension and frustration toward their chosen occupation. In nursing education, the male nursing student not only has to adjust to his female peer group, but usually to the female nursing faculty as well. The male student has to interact with female nurses and female patients who may question his masculinity (Tumminia & Peterson, 1984). Thus, according to Segal (1962), males in nursing suffer anxiety and role strain due, in part, to their minority status.

Because of the role strain inherent in fulfilling a traditional female role, males in nursing tend to work in areas which might reduce role strain (Johnston, 1987). According to Greenberg and Levine (1971) and Bush (1976), nursing specialty areas such as psychiatry, administration and urology have historically created less strain for males. The reason may be that physical contact, especially while caring for female patients, is less (Johnston, 1987). Greenberg and Levine (1971) also described psychiatry and administration as having less identification with traditional nursing, less need for wearing nursing uniforms, increased autonomy in practice and occasionally higher pay.

Most studies on role strain were descriptive surveys or interviews which focused on very small samples of male nurses and male nursing students from either one hospital or one educational setting. No comparative occupational or gender groups were used in the research to compare or contrast the findings.

Obstetrical Nursing Experiences

According to the literature (Annas, 1981; Brenda, 1981; Brown, 1985; Brown, 1986; Turnipseed, 1986), some males in nursing education have experienced discrimination in their obstetrical nursing experiences because of their gender. Although all nursing sudents rotate through this nursing specialty as a program requirement, male students face barriers in providing nursing care to obstetrical patients--from the patient, nursing instructor and the medical and nursing staff. Barriers, such as the refusal to accept nursing care from a male nursing student, prejudice and inequitable patient assignments from their instructors, as well as verbal abuse from the obstetrical nurses and physicians, have created increased stress for some males studying in this area (Greenberg & Levine, 1971; Hamilton, 1979; Annas, 1981; Brenda, 1981).

Most of the literature on this topic described isolated incidences of discrimination against a few male students. However, in a study on discimination of male nurses, Hamilton (1979) found that the educational and clinical experiences in obstetrics were inadequate for most of the 850 male nurses he surveyed, and that some form of discrimination in obstetrical nursing occurred because of the male nurse's gender. No comparative groups of female nurses or female nursing students were included in these studies to compare or contrast the findings on discrimination.

Male Withdrawal Rates from Schools of Nursing

Brown (1975) examined withdrawal rates from nursing education as part of a longitudinal study of British male nursing students. Altogether, 372 male students from 57 different hospitals in England and Wales were interviewed. Fifty-seven percent of the male students successfully completed their diploma nursing education, while 43 percent withdrew over the three year period. Of those students who withdrew, Brown (1975) identified several factors which could be related to males leaving nursing education. Attrition occurred more frequently among students from the British Isles than foreign students; those with above average academic backgrounds; males enrolled in general nursing programs; and male students in their early twenties. The exclusion of comparable data on British female student attrition rates limited the inferences as to the magnitude of male attrition from nursing in Britain. As well, cultural differences between Britain and Canada inhibit generalizability to Canadian male nursing students.

Schoenmaker (1976) found that in one baccalaureate program in the United States, the attrition rates for male nursing students were double those of female students. Vaughn and Johnson (1977) found high attrition rates among males and other minority groups in all nursing programs in the United States. Statistics on attrition rates for Canadian male nursing students were not found in the literature.

Summary

Nursing education in Canada. Nursing education in Canada began over a century ago in St. Catharines, Ontario. Over the years, many developments occurred in nursing which influenced the education of nurses--the growth and expansion of hospital schools of nursing; establishment and enforcement of standards in nursing education by provincial nursing associations; research on nursing education; and the establishment and growth of nursing programs in universities. In 1986, nursing education was offered through 111 diploma schools of nursing and at 27 universities across Canada. Altogether, 34,776 nursing students were enrolled in diploma, baccalaureate and master's degree programs in Canada. The province of Alberta had the third largest number of students enrolled in all levels of nursing education in Canada. Over the last 10 years, there has been an increasing trend for nurses to obtain baccalaureate education. This coincides with the entry to practice position which aims to have the baccalaureate degree in nursing as the minimal requirement for entering nursing practice in the year 2000.

History of males in nursing. Over the last two decades, a gradual increase in the number of male enrollments and graduations in diploma schools of nursing occurred in Canada. By 1985, male diploma students represented 9.5 percent of enrollments and 5.7 percent of the diploma graduates. From a historical perspective, males in nursing have had a long history of providing care to the sick and injured, and have been reported to be performing nursing roles in both ancient civilizations and during the middle ages. In the 1800s, with the expansion of hospitals in North America, male attendants were employed to provide care to psychiatric patients. Males, as psychiatric nurses, became more prominent as the field of psychiatry developed. By the twentieth century, males began entering schools of nursing associated with general hospitals. During the 1960s and 1970s, males in nursing education reported limited access into nursing schools, as well as limited obstetrical experiences.

Research on males in nursing. The major research studies have focused on six themes related to males in nursing education. Demographic studies indicated that male nursing students entered nursing in their mid-twenties, and with previous education and work experience. The personalities and interests of male nursing students were similar to female nursing students. Gender differences in student attitudes toward nursing education were identified--more males than females indicated nursing education was not difficult, had fewer thoughts of quitting nursing education and were more critical of the nursing curriculum. Role strain was cited as one problem for males in nursing education. Male nursing students reported feelings of gender discrimination in obstetrical nursing. As well, male withdrawal rates from nursing education were described as high.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

This chapter consists of a description of the method in which the data for the study were collected, organized and analyzed. The chapter is divided into five sections: population sampled, questionnaire design, pilot testing of the questionnaire, data collection and data analysis.

Population Sampled

The target group for this study consisted of a population of 164 male nursing students a sample of 164 female nursing students (who were obtained from a total population of 2,576) enrolled in 13 basic nursing education programs in Alberta, in September 1987. All male nursing students were included, but the female students were randomly selected to match the male students by type of nursing school attended and year of program (Table 3.1). Consequently, the female sample consisted of 6.36 percent of the females enrolled in nursing education. This design was used to obtain a female sample that resembled the male population in terms of nursing education. One hundred and seventeen male respondents (71.3%) and 121 female respondents (73.7%) returned completed questionnaires, all of which were used in the study.

Questionnaire Design

The questionnaire, as shown in Appendix C, was designed by the investigator and consisted of five sections. Section A examined the demographic and employment characteristics of the respondents. Section

Table 3.1

Distribution of Male Students in Alberta Nursing Programs in September 1987 by Type and Year of Program

TYPE OF PROGRAM	YEAR OF PROGRAM			
	First	Second	Third	Fourth
COLLEGES				
Grant MacEwan Community College	8	11	-	-
Red Deer College	6	2	-	-
Keyano College	6	2	-	-
Grande Praire Regional College	1	0	-	-
Lethbridge Community College	7	4	-	-
Mount Royal College	3	4	-	-
Medicine Hat College	2	2	-	-
COLLEGE TOTAL--58				
HOSPITAL SCHOOLS OF NURSING				
Royal Alexandra Hospitals	12	6	6	-
Foothills Hospitals	4	2	1	-
University Hospitals	19	13	6	-
Miscercordia Hospital	7	3	1	-
HOSPITAL TOTAL--80				
UNIVERSITIES				
University of Calgary	3	4	3	0
University of Alberta	6	6	3	1
UNIVERSITY TOTAL--26				
TOTAL MALE STUDENTS--164	84	59	20	1

B addressed the respondents' interest in nursing and nursing education. Section C examined the respondents' interest in clinical nursing practice, as well as future work plans and career aspirations. Section D addressed the level of satisfaction with nursing education, while Section E allowed the respondents to rate male and female nurses on specific qualities and to comment on the personality characteristics of male and female nurses.

A total of 72 response items were used to gather data required for the study. Sixty-two questions were developed by the investigator, while ten survey items were obtained from the literature (Auster, 1970; Rodov et al., 1976). Nine questions by Auster (1970, p.535-537, 543-544 and 548) on the educational and career interests of nursing students were used, as well as one question from Rudov et al. (1976, p.102) on the nursing tasks most preferred by students in the clinical area. In addition, the survey items used for the demographic data in Section A of the questionnaire were modelled, in part, on the research instrument by Robson (1964).

Pilot Testing the Questionnaire

A pilot test of the questionnaire was conducted after the initial draft was completed. The sample for the pilot test included five female and two male nursing students enrolled in first year nursing education at the Royal Alexandra Hospitals School of Nursing in June 1987. As well, three nursing faculty members from the Royal Alexandra Hospitals School of Nursing reviewed the questionnaire.

The results of the pilot test indicated that all questions were useful for the study. None of the respondents indicated that the instructions to the questionnaire were difficult to understand or incomplete. Three respondents recommended the addition of a written section whereby nursing students could express opinions about nursing education. A futher recommendation included requests for more categories of nursing courses and specializations for four survey items. Minor changes in the questionnaire were made in accordance with these recommendations.

The re-designed questionnaire was then given to four different first year female nursing students at the Royal Alexandra Hospitals School of Nursing for further assessment. The feedback received indicated that no additional changes to the questionnaire's format were necessary.

Data Collection

After obtaining consent from the 13 participating schools of nursing in the province, the questionnaires along with cover letters (Appendix B) explaining the purpose of the study, were distributed to selected respondents. All measures to ensure confidentially and anonymity were carefully outlined to the students in the cover letter. The data were collected from the 13 educational institutions in a manner agreeable to the directors of nursing education and the investigator. Voluntary completion of the questionnaire was considered to be the student's consent to participate in the study. The data collection procedures used are outlined below.

The Royal Alexandra Hospitals and the University of Alberta Hospitals Schools of Nursing. The investigator was given an alphabetized list of the names of male and female students enrolled at these two institutions by year of program. A random number table was used by the investigator to select female students equal in numbers to the male students enrolled by year of program at each institution, by matching the random numbers generated to the names of female students in the order that they appeared on class lists. After the female sample was determined, copies of the questionnaire and cover letter were placed in the male and female students' mailboxes located in the nurses' residences along with instructions requesting that students return the completed questionnaires to the school's main office for collection by the investigator.

Grant MacEwan Community College. The questionnaires were administered by the investigator to male and female students in the classroom setting at the end of two scheduled nursing classes--one first year and one second year class. All male students received a questionnaire during the two class periods. An equal number of female students by year of program received a questionnaire based on a pre-determined seating arrangement--beginning with female students sitting in the front row on the right side of the room and using every alternate female. Female students who were not required to participate in the study had permission to leave. The investigator was not in the room while the students completed the questionnaire. Completed questionnaires were placed on a table at the front of the classroom and collected by the investigator thereafter.

Misericordia Hospital School of Nursing. The investigator delivered questionnaires to a contact person at the nursing school along with a list of random numbers and instructions for selecting female students--match random numbers to the names of female nursing students in the order that they appear on class lists. The contact person distributed the questionnaires to all male students and to a random sample of female students equal to the males by year of program. The completed questionnaires were returned to the nurses' residence main office for collection by the investigator.

The University of Alberta. The faculty of nursing at the University of Alberta requested that all questionnaires and cover letters be placed in stamped envelopes along with an enclosed self-addressed stamped envelope. The faculty of nursing staff selected female students equal to the males by year of program by matching the names of female students as they appeared on class lists to a series of random numbers supplied by the investigator. The faculty of nursing then distributed the questionnaires by mail to all male students and to the selected female students at this institution. Completed questionnaires were returned directly to the investigator by mail.

Other schools of nursing. Questionnaires, cover letters and the instructions for data collection were sent directly to the directors of nursing education by mail for distribution to nursing students at eight institutions--Red Deer College, Mount Royal College, Lethbridge Community College, Medicine Hat College, Grande Praire Regional College, Keyano College, the faculty of nursing at the University of Calgary and the Foothills Hospital School of Nursing. The director or an agent at each institution selected the female sample by matching random numbers supplied by the investigator to the names of female students in the order that they appeared on class lists, equal to the males by year of program. Questionnaires with attached stamped envelopes addressed to the investigator were given to all male students and to the selected female students either in person or placed in the students' mailbox by the director of nursing education or by an agent at the institution. Students were instructed to return completed questionnaires directly to the investigator by mail.

The collection of data encompassed a six week period due to the various procedures used in data collection at the 13 nursing schools in the province. A total of 136 questionnaires were collected by the investigator at four educational institutions, while 102 questionnaires were received by mail from nine educational institutions.

Follow-up letters. Seven to ten days after the initial questionnaires were distributed to the hospital, college and university schools of nursing in the province, a follow-up letter (Appendix D) was sent requesting that the male and female students selected for the study return completed questionnaires to the investigator. The male and female students at the Royal Alexandra Hospitals and University of Alberta Hospitals received follow-up letters in their mailboxes; students at the Misericordia Hospital received follow-up letters through a contact person; the faculty of nursing at the University of Alberta mailed follow-up letters to the students who received questionnaires; and at eight schools of nursing in the province, follow-up letters were distributed by the directors of nursing education or through an agent at each institution to students selected for the study. The Grant MacEwan Community College students did not receive follow-up letters since all students completed the questionnaire prior to leaving the classroom.

Data Analysis

The questionnaires were pre-coded for data entry. Data were analyzed using the Statistical Package for the Social Sciences--SPSSx. The characteristics of the respondents, as elicited in Sections A,B,C,D and E of the questionnaire, were summarized by frequency distributions and percentages. Some survey items were analyzed using the mean and median as a measure of central tendency. The Chi Square statistic was used to identify differences within the total sample. The students' written comments were summarized by their frequency of occurrence and rank ordered.

Summary

A questionnaire, designed by the investigator, was distributed to 164 male and 164 female nursing students at 13 Alberta educational institutions, following two pilot tests of the questionnaire on 11 nursing students and three nursing faculty members at the Royal Alexandra Hospitals School of Nursing. A total of 117 male students (71.3%) and 121 female students (73.7%) returned completed questionnaires. Five data collection procedures were used. Data collection was carried out by the investigator with the assistance of all directors of nursing education at 13 educational institutions in Alberta. All male students and a random sample of female students, equal to the males by year of program and institution, received questionnaires. Female students were selected by matching random numbers to the names of female students in the order that they appeared on class lists. Follow-up letters were sent to all students who participated in the study. The students' responses were analyzed using the SPSSx program. The results of the data analysis were described in frequency distributions and percentages along with the use of some descriptive and nonparametric statistics.

CHAPTER 4

DATA ANALYSIS

This chapter contains data related to the demographic and background characteristics, interests in nursing education, career aspirations and future plans, the image of nursing and satisfaction with nursing education of male and female nursing students. Various tables are presented and only the most salient characteristics are described in the text. A commentary on male nursing students follows each major section.

Demographic and Background Characteristics

Demographic Characteristics

Table 4.1 presents data related to the respondents' age, marital status, rural/urban origins, and parents' education. Statistically significant differences by gender were found in the case of three variables: age, rural/urban backgrounds and mothers' education.

Males tended to be equally distributed across the three age categories, whereas female respondents were predominantly in the youngest age category. Males were older than females with a median and mean age of 27 and 28.2 years respectively for males compared to 22 and 24.6 years for females. A larger percentage of males (65.0%) than females (40.8%) indicated they lived in a city when they were between six and 16 years of age. Conversely more females had small town or rural roots. A greater proportion of males (40.0%) than females (26.4%) were married. However, single students of both genders made up the largest percentage of the respondents.

Table 4.1

Demographic Characteristics of Respondents by Gender

VARIABLES	Male	Female	Chi square	P
AGE				
24 years or less	43 (36.8%)	78 (64.5%)	20.03	≤0.0001
25 - 30 years	39 (33.3%)	17 (14.0%)		
31 years or more	35 (29.9%)	26 (21.5%)		
MARITAL STATUS				
Single	61 (53.0%)	78 (64.5%)	4.91	NS
Married	46 (40.0%)	32 (26.4%)		
Divorced	8 (7.0%)	11 (9.1%)		
RURAL/URBAN ORIGINS				
Farm/country	18 (15.3%)	31 (25.8%)	13.83	≤0.001
Village/town	23 (19.7%)	40 (33.4%)		
City	76 (65.0%)	49 (40.8%)		
FATHERS' EDUCATION				
Less than high school	57 (48.7%)	53 (43.8%)	4.35	NS
Completed high school	24 (20.5%)	15 (12.4%)		
Certificate/diploma	15 (12.9%)	21 (17.4%)		
University degree	21 (17.9%)	32 (26.4%)		
MOTHERS' EDUCATION				
Less than high school	42 (36.5%)	39 (32.9%)	9.16	≤0.01
Completed high school	35 (30.6%)	19 (16.1%)		
Certificate/diploma	23 (20.4%)	43 (36.5%)		
University degree	13 (12.5%)	17 (14.5%)		

More mothers of females (51.0%) than males (32.9%) completed some postsecondary education at the level of a certificate, diploma or degree. A similar trend appeared for the fathers' educational level, although the differences were not statistically significant.

Parents' Occupation

Table 4.2 presents the occupational groups of the respondents' parents. The most common occupational groups for the male respondents' fathers were tradesmen (15.4%), farmers (13.7%), service (10.3%), professional (8.5%) and managerial (8.5%). Fathers of female respondents were primarily farmers (14.9%), professional (14.9%), tradesmen (11.6%), self-employed (7.4%) and managerial (7.4%). Mothers of male and female respondents were predominantly homemakers (39.3% and 33.9% respectively), followed by service (11.1% male and 6.6% female), clerical (10.3% male and 8.3% female) and professional (9.4% male and 17.4% female).

Family Members in Nursing

As shown in Table 4.3, while over two-thirds of all respondents had some relatives in nursing, the greatest percentage of males (46.1%) and females (43.2%) had both immediate and extended family members in nursing. The most common close relatives for both male and female respondents were sisters and mothers. The most common distant relatives were female cousins and aunts. In addition, eight males indicated they had a spouse in nursing, while two female respondents had male cousins in nursing.

Table 4.2

Occupation of Parents by Gender

OCCUPATIONS	Male		Female	
	Father	Mother	Father	Mother
Homemaker	0 (0.0%)	46 (39.3%)	0 (0.0%)	41 (33.9%)
Farmer	16 (13.7%)	1 (0.8%)	18 (14.9%)	1 (0.8%)
Teacher	4 (3.2%)	5 (4.3%)	11 (9.1%)	7 (5.8%)
Managerial	10 (8.5%)	9 (7.7%)	9 (7.4%)	5 (4.1%)
Clerical	3 (2.4%)	12 (10.3%)	0 (0.0%)	10 (8.3%)
Sales	4 (3.2%)	2 (1.7%)	6 (4.9%)	2 (1.6%)
Self-employed	10 (8.5%)	6 (5.1%)	9 (7.4%)	7 (5.8%)
Construction	7 (7.0%)	0 (0.0%)	6 (4.9%)	0 (0.0%)
Tradesman	18 (15.4%)	1 (0.8%)	14 (11.6%)	0 (0.0%)
Transportation	5 (4.1%)	0 (0.0%)	3 (2.5%)	0 (0.0%)
Service	12 (10.3%)	13 (11.1%)	4 (3.3%)	8 (6.6%)
Technology	5 (4.1%)	3 (2.6%)	7 (5.8%)	0 (0.0%)
Professional	10 (8.5%)	11 (9.4%)	18 (14.9%)	21 (17.4%)
Other	11 (9.4%)	5 (4.3%)	14 (11.6%)	15 (12.4%)
No Response	2 (1.7%)	3 (2.6%)	2 (1.7%)	4 (3.3%)
TOTAL	117 (100 %)	117 (100 %)	121 (100 %)	121 (100 %)

Table 4.3

Distribution of Family Members in Nursing by Gender

FAMILY MEMBERS	Male	Female	Chi square	P
No relatives	33 (28.7%)	36 (32.5%)		
Immediate family only	20 (17.4%)	13 (11.7%)		
Extended family only	9 (7.8%)	14 (12.6%)	2.87	NS
Both immediate and extended family	53 (46.1%)	48 (43.2%)		

Previous Education and Work Experience

Table 4.4 presents data for the respondents' high school grades, completion of high school, postsecondary education and work experience. Statistically significant differences by gender were found for completion of high school, postsecondary education and work experience.

A greater percentage of females (54.5%) compared to males (46.2%) indicated their high school grades were above average. Slightly more males (11.9%) than females (4.2%) had below average grades in high school. More females (74.8%) than males (47.0%) completed high school in three academic years. For the males (53.0%) and females (25.2%) who did not complete high school in three consecutive years, high school attainment was achieved by attending evening classes, attending high school for an additional term or year, through correspondence, by attending classes on a part-time basis through Edmonton continuing education programs or at Alberta Vocational College.

Male respondents had more work experience than females at the point of entry into nursing. About one in five males and females had experienced one full-time job, but more males (70.7%) than females (42.9%) indicated they had previously held two or more full-time jobs. Only one-tenth of the males had no previous employment experience compared to about one-third of the females. More males (47.9%) than females (38.3%) had completed postsecondary education programs prior to entering nursing. Of these program graduates, more males (18.2%) than females (6.7%) had attained university degrees.

Table 4.4

Educational and Work Characteristics by Gender

VARIABLES	Male	Female	Chi square	P
GRADES IN HIGH SCHOOL				
Above average	54 (46.2%)	66 (54.5%)	1.35	NS
Average	49 (41.9%)	50 (41.3%)		
Below average	14 (11.9%)	5 (4.2%)		
COMPLETION OF HIGH SCHOOL				
Three years	55 (47.0%)	89 (74.8%)	17.99	≤0.0001
More than three years	62 (53.0%)	30 (25.2%)		
HIGHEST LEVEL OF POSTSECONDARY EDUCATION				
No postsecondary education	20 (17.3%)	34 (28.3%)	6.04	≤0.05
Some postsecondary education	31 (27.0%)	37 (30.8%)		
Certificate/diploma	34 (29.7%)	38 (31.6%)		
University degree	21 (18.2%)	8 (6.7%)		
Other	9 (7.8%)	3 (2.6%)		
WORK EXPERIENCE				
No experience	12 (10.3%)	41 (34.4%)	23.56	≤0.0001
One job	22 (19.0%)	27 (22.7%)		
Two or more jobs	82 (70.7%)	51 (42.9%)		

The five areas of postsecondary education most frequently studied by male respondents included emergency paramedic medicine, the nursing assistant program, biology, psychology and auto machanics. Female respondents most frequently studied in the nursing assistant program, education, general arts and sciences, secretarial school and psychology.

Commentary

Male respondents generally were about four years older, more likely to be married and had more previous education and work experience when compared to the female respondents. The older age of the males is a probable explanation for their marital status and varied life experience. In addition, nursing appears to be a second career for males since about half had completed a postsecondary education program in another occupational area, and about 90 percent had been employed full-time prior to entering nursing. Over two-thirds of the male and female respondents had exposure to a nursing career through relatives who were involved in nursing. Thus, relatives who were nurses, may have been influential in the choice of a nursing career for both male and female respondents.

The data on parents' education and occupation suggests that both male and female respondents come from lower socio-economic levels. Slightly less than half of the male and female respondents had fathers who did not complete high school and whose primary occupations involved some physical labor.

While male respondents indicated stronger postsecondary education backgrounds, they tended to have less favorable high school backgrounds than female respondents. Over half of the males indicated that their high school grades were average or below and they required more than the traditional three academic years to complete high school education.

Present Nursing Program

School of Nursing Attended

The distribution of male and female respondents by year of program and type of nursing school is approximately the same since the female sample was drawn to correspond to the male students. As shown in Table 4.5, the largest percentage of male respondents (84.5%) were enrolled in diploma nursing programs. A higher proportion of male respondents attended hospital schools of nursing (47.4%) than colleges (37.1%) or universities (15.5%). About half of the male respondents were in their first year of nursing education.

Age Upon Entering Nursing

As shown in Table 4.6, male respondents were distributed evenly throughout the three age categories upon entering nursing, whereas female respondents (62.8%) were predominantly in the youngest age category. The mean age for entrance into nursing was 26.8 and 23.2 years respectively for the male and female respondents.

Commentary

The decision to enroll into a nursing program occurred later for males than females. Most male respondents entered nursing in their mid-twenties, following other experiences associated with education or work. Thus, one may speculate that factors exist which impede males from choosing a nursing career earlier in their lives.

Table 4.5

Year and type of Nursing Program by Gender

YEAR OF PROGRAM		TYPE OF PROGRAM		
		Hospital	College	University
First	Male	23 (19.8%)*	22 (19.0%)	6 (5.2%)
	Female	34 (28.1%)**	20 (16.5%)	8 (6.7%)
Second	Male	19 (16.4%)	21 (18.1%)	6 (5.2%)
	Female	13 (10.7%)	20 (16.5%)	7 (5.8%)
Third	Male	13 (11.2%)	---	5 (4.3%)
	Female	12 (9.9%)	---	7 (5.8%)
Fourth	Male	---	---	1 (0.8%)
	Female	---	---	---
TOTAL	Male	55 (47.4%)	43 (37.1%)	18 (15.5%)
	Female	59 (48.7%)	40 (33.0%)	22 (18.3%)

* Percentage of all male respondents

** Percentage of all female respondents

Table 4.6

Age of Entry into Nursing by Gender

AGE ENTERED NURSING	Male	Female	Chi square	P
22 years or less	35 (29.9%)	76 (62.8%)	27.02	≤0.0001
23 - 28 years	45 (38.5%)	20 (16.5%)		
29 years or more	37 (31.6%)	25 (20.7%)		

Additionaly, the majority of the male respondents were enrolled in diploma nursing programs. Perhaps for males, the nursing programs offered at colleges and hospital schools are more favorable than baccalaureate nursing programs due to the shorter time commitment necessary to graduate--two to three years, depending on the institution.

Factors Influencing the Choice of a Nursing Career

Factors related to the choice of a nursing career are shown in Table 4.7. Statistically significant differences by gender were found for the age at which thoughts first occurred about a nursing career, as well as the influence of people in the choice of nursing.

Females considered careers in nursing at an earlier age than males. The largest group of females (43.0%) first thought about nursing by the age of 16 years, whereas the majority of males (70.9%) did not contemplate a nursing career till age 20 or beyond. Although the greatest percentage of both male (44.4%) and female (52.1%) respondents credited no one in particular with influencing their choice of a nursing career, more males (26.5%) than females (7.4%) singled out a nurse-friend as an influencing factor in their career choice.

Both male and female respondents were optimistic about their choice of a nursing career. Only 0.7% of the male respondents and 3.4% of the female respondents felt that nursing would not be a satisfying career.

A commitment to nursing education was expressed by similar percentages of male and female respondents. Over two-thirds of the

Table 4.7

Factors Related to the Choice of a Nursing Career by Gender

VARIABLES	Male	Female	Chi square	P
AGE FIRST THOUGHT ABOUT NURSING				
16 years or less	10 (8.5%)	52 (43.0%)	60.09	≤0.00001
17 - 19 years	24 (20.6%)	41 (33.9%)		
20 years or more	83 (70.9%)	28 (23.1%)		
INFLUENTIAL PERSON IN THE CHOICE OF NURSING				
Nurse relative	17 (14.5%)	19 (15.7%)	19.49	≤0.001
Non-nurse relative	7 (6.0%)	15 (12.4%)		
Nurse friend	31 (26.5%)	9 (7.4%)		
Non-nurse friend	5 (4.3%)	3 (2.5%)		
No particular person	52 (44.4%)	63 (52.1%)		
Other	5 (4.3%)	12 (9.9%)		
NURSING AS A CAREER				
Only career	18 (15.6%)	28 (23.3%)	6.86	NS
One of several careers	46 (39.7%)	52 (43.3%)		
Satisfying after graduation	51 (44.0%)	36 (30.0%)		
Not a satisfying career	1 (0.7%)	4 (3.4%)		
THOUGHTS ABOUT QUITTING NURSING EDUCATION				
Frequently	4 (3.4%)	5 (4.2%)	2.53	NS
Occasionally	31 (26.5%)	34 (28.3%)		
Seldom	39 (33.3%)	29 (24.2%)		
Never	43 (36.8%)	52 (43.3%)		

males (70.1%) and females (67.5%) indicated they seldom or never thought about quitting nursing education. Conversely, one-third of the respondents by gender claimed to have occasional or frequent thoughts about quitting their nursing education.

Reasons for Entering Nursing

Many reasons for entering nursing were acknowledged by both male and female respondents (Table 4.8). For both genders, the most prevalent reasons were opportunities to help people, employment opportunities, a steady income and an interest in the health care field. More males (51.3%) than females (35.3%) indicated opportunities for career advancement was an influencing factor.

As shown in Table 4.9, additional reasons for entering nursing for some male respondents were related to travel and work in other countries, improvement of knowledge and job security. Female respondents referred to helping people, to work in a variety of specialty areas and employment opportunities outside the country.

Commentary

There was almost a complete absence of an early interest in a nursing career for male students, more than two-thirds of whom did not become interested in nursing until their twenties. Perhaps due to its traditional feminine connotation, nursing may not be perceived as a likely occupational choice among high school males. In addition, it appears that individuals who were involved in nursing--especially a nurse-friend or nurse-relative--may have been influential in stimulating a career interest among the males, although about

Table 4.8

Distribution of Reasons for Entering Nursing by Gender

INFLUENTIAL FACTORS IN THE CHOICE OF A NURSING CAREER	Male	Female	P
Opportunities to help people	102 (87.2%)	108 (89.3%)	NS
Good steady income	90 (76.9%)	84 (69.4%)	NS
Higher income than other occupations	22 (18.8%)	23 (19.0%)	NS
The work is more important than other careers	41 (35.0%)	43 (35.0%)	NS
Improve status in life	43 (36.8%)	37 (30.6%)	NS
A nurse has dignity and prestige	26 (22.2%)	31 (25.6%)	NS
The scientific aspects are appealing	48 (41.0%)	63 (52.1%)	NS
Good job opportunities	96 (82.1%)	90 (74.4%)	NS
Good opportunities for advancement	60 (51.3%)	43 (35.3%)	≤ 0.05
Best opportunity at the time	24 (20.5%)	15 (12.4%)	NS
Interest in the health care field	85 (72.6%)	96 (79.3%)	NS
Opportunities to work with other professionals	37 (31.6%)	33 (27.3%)	NS
Opportunities to help others through religious beliefs	18 (15.4%)	16 (13.2%)	NS
Increase medical knowledge after being an R.N.A.	23 (19.7%)	14 (11.6%)	NS

Table 4.9

Additional Reasons for Entering Nursing by Gender

REASONS	Male		Female	
	frequency/rank		frequency/rank	
Opportunities to travel and work in other countries	18	1	9	3
Improve knowledge of health care	10	2	0	0
Job security	9	3	1	6.5
An opportunity to work with people who need help	7	4	21	1
Tired of being unemployed	2	5.5	0	0
For personal reasons	2	5.5	5	4
I like to feel appreciated	1	8.5	0	0
Interest in health care	1	8.5	0	0
Possible career advancement	1	8.5	1	6.5
Use nursing education as a base to enter medicine	1	8.5	1	6.5
Opportunities to choose the specialty area you want	0	0	10	2
I was unhappy in my previous job	0	0	1	6.5

two-fifths of the male respondents attributed their decision to no one in particular.

Over two-thirds of the males and females claimed to have a positive commitment to their nursing education. Only a small percentage of the male and female respondents had frequent thoughts about quitting their nursing programs.

The male respondents primarily entered nursing for humanitarian reasons as well as for extrinsic rewards. The main reasons for choosing a nursing career cited by the majority of males included opportunities to help people, employment opportunities and a steady income. Generally, however, males and females were quite similar in their reasons for entering nursing education.

Nursing Education

Subjects of Greatest Interest

The top five subjects of interest to male respondents (Table 4.10) included anatomy and physiology, surgical nursing, disease pathophysiology, operating room nursing and medical nursing. Similarly, the top five subjects selected by female respondents were anatomy and physiology, obstetrical nursing, disease pathophysiology, surgical nursing and pediatrics. Thus, three of the five nursing subjects of greatest interest to males were also selected by the female respondents. Statistically significant differences were found between male and female preferences for three subjects: medical nursing, obstetrical nursing and pediatric nursing. More males were interested in medical nursing, while more females were interested in obstetrics and pediatrics.

Table 4.10

Subjects of Greatest Interest by Gender

SUBJECTS	Male		Female		
	frequency/rank		frequency/rank		P
Psychology	21	7	15	8	NS
Sociology	7	13.5	8	16.5	NS
Microbiology	4	17.5	5	19	NS
Anatomy and Physiology	57	1	49	1	NS
Disease Pathophysiology	28	3	36	3	NS
Human Growth & Development	7	13.5	12	9	NS
Family Studies	2	19.5	8	16.5	NS
Nursing Management	15	10	8	16.5	NS
Pharmacology	8	11.5	11	11	NS
History of Nursing	0	22.5	2	23	NS
Nutrition	5	16	11	11	NS
Religious Studies	0	22.5	3	21.5	NS
Medical Nursing	23	5	9	13.5	≤ 0.01
Fundamentals of Nursing	17	9	9	13.5	NS
Surgical Nursing	31	2	29	4	NS
Operating Room Nursing	26	4	21	6	NS
Psychiatric Nursing	19	8	11	11	NS
Obstetrical Nursing	6	15	41	2	≤ 0.001
Intensive Care Nursing	22	6	16	7	NS
Research Methodolgy	2	19.5	4	20	NS
Statistics	1	21	3	21.5	NS
Geriatric Nursing	4	17.5	8	16.5	NS
Pediatric Nursing	8	11.5	28	5	≤ 0.001

Subjects of Least Interest

As shown in Table 4.11, male respondents indicated least interest in religious studies and statistics, history of nursing, psychology, geriatric nursing and research methodology. Similarly, female respondents showed least interest in religious studies, statistics, history of nursing, geriatric nursing, research methodology and sociology. Statistical differences by gender were found for operating room nursing and obstetrics. Male respondents had less interest than female respondents in obstetrics, while females were less interested than males in operating room nursing.

Nursing Functions of Greatest Preference

Table 4.12 presents data for the nursing functions of greatest preference to male and female respondents. The six nursing functions selected most often by male respondents in the clinical area were dressing changes, interpreting medical procedures to patients, talking with a dying patient, going on physician's rounds, performing post-operative care and pre-operative patient teaching. Female respondents chose the nursing functions of holding a lonely patient's hand, post-operative care, dressing changes, interpreting medical procedures to patients, pre-operative teaching and going on physician's rounds. Hence, five of the six nursing functions of greatest preference for males were also chosen by females.

Statistically significant differences between male and female responses were found for holding a lonely patient's hand, taking vital signs, talking with a dying patient and reading to patients. More males chose to talk with a dying patient and take vital signs, while

Table 4.11

Subjects of Least Interest by Gender

SUBJECTS	Male		Female		
	frequency/rank		frequency/rank		P
Psychology	29	4	21	8	NS
Sociology	14	9	25	5.5	NS
Microbiology	14	9	22	7	NS
Disease Pathology	4	17	3	18.5	NS
Anatomy and Physiology	2	21	7	14	NS
Human Growth & Development	6	15	1	23	NS
Family Studies	14	9	10	11.5	NS
Nursing Management	4	17	8	13	NS
Pharmacology	4	17	4	16.5	NS
History of Nursing	33	3	32	3	NS
Nutrition	12	11.5	11	10	NS
Religious Studies	37	1.5	46	1	NS
Medical Nursing	2	21	6	15	NS
Fundamentals of Nursing	7	13.5	4	16.5	NS
Surgical Nursing	1	23	2	21	NS
Operating Room Nursing	2	21	10	11.5	≤ 0.05
Psychiatric Nursing	12	11.5	17	9	NS
Obstetrical Nursing	15	7	2	21	≤ 0.01
Intensive Care Nursing	3	19	3	18.5	NS
Research Methodology	19	6	25	5.5	NS
Statistics	37	1.5	43	2	NS
Geriatric Nursing	20	5	26	4	NS
Pediatric Nursing	7	13.5	2	21	NS

Table 4.12

Nursing Functions Preferred by Gender

NURSING FUNCTIONS	Male		Female		
	frequency/rank		frequency/rank		P
Dressing changes	61	1	57	3	NS
Hold a lonely patient's hand	39	8	71	1	≤0.001
Evaluate staff	12	14	4	20.5	NS
Bathing patients	4	22	10	14	NS
Administer injections	43	7	30	9	NS
Interpret medical procedures to patients	58	2	51	4	NS
Monitor intravenous therapy	17	12	12	13	NS
Process physician's orders	6	19.5	9	15.5	NS
Comfort a patient's family	28	10	34	8	NS
Take vital signs	30	9	17	12	≤0.05
Chart on patients	12	14	8	17.5	NS
Pre-operative teaching	44	6	49	5	NS
Talk with a dying patient	54	3.5	35	7	≤0.01
Play cards with patients	24	11	24	10	NS
Schedule patients for tests	2	22	4	20.5	NS
Collect specimens	2	22	1	23	NS
Go on physician's rounds	54	3.5	42	6	NS
Fill-out assignment sheets	9	18	4	20.5	NS
Feed patients	10	16.5	9	15.5	NS
Give report to the next shift	12	14	8	17.5	NS
Read to patients	10	16.5	22	11	≤0.05
Attend staff meetings	6	19.5	4	20.5	NS
Perform post-operative care	50	5	65	2	NS

more females elected to hold a lonely patient's hand and read to patients.

The least selected nursing functions for both males and females included collecting specimens, scheduling patients for tests and attending staff meetings. Fewer males than females would prefer to bath patients or process physician's orders.

Interest in Clinical Nursing

As shown in Table 4.13, the male and female respondents had similar opinions about clinical nursing. In general, clinical nursing practice was perceived as a necessary and important component of their nursing education. About 60 percent of both male and female respondents indicated they were more interested in the clinical aspects than in the theoretical aspects of nursing and learned more on the clinical area than from classroom instruction. About two-thirds of the males and three-quarters of the females denied feelings of boredom while on the clinical area. As well, over half of the male and female respondents agreed that more time should be spent as students on the clinical areas.

Interaction with Peers and Nursing Instructors

In general, similar percentages of male and female respondents interacted with their nursing instructors and peers to discuss course content, clinical experiences and future career plans (Table 4.14). No statistically significant differences between the responses of the males and females were found.

About half of the males and females claimed to have frequent interactions with their peers regarding course content and clinical

Table 4.13

Interest in Clinical Nursing by Gender

CLINICAL NURSING	GENDER	agree	undecided	disagree	P
More interested in clinical than theory	Male	79 (60.0%)	26 (22.6%)	20 (17.4%)	NS
	Female	68 (56.6%)	23 (19.2%)	29 (24.2%)	
After a few weeks clinical becomes boring	Male	14 (12.5%)	24 (21.5%)	74 (66.0%)	NS
	Female	8 (7.1%)	18 (16.1%)	86 (76.8%)	
More time should be spent in clinical	Male	65 (56.5%)	33 (28.7%)	17 (14.8%)	NS
	Female	60 (52.2%)	30 (26.1%)	25 (21.7%)	
Learn more in clinical than from classes	Male	66 (58.4%)	30 (26.6%)	17 (15.0%)	0.05
	Female	66 (58.4%)	17 (15.1%)	30 (26.5%)	

Table 4.14

Interactions with Peers and Nursing Instructors by Gender

INTERACTIONS	GENDER	frequent	occasional	seldom/never	P
Discuss course content with peers	Male	59 (50.4%)	41 (35.1%)	17 (14.5%)	NS
	Female	67 (55.8%)	40 (33.4%)	13 (10.8%)	
Discuss nursing careers with peers	Male	37 (31.6%)	46 (39.4%)	34 (29.0%)	NS
	Female	43 (35.5%)	55 (45.5%)	23 (19.0%)	
Discuss clinical experiences with peers	Male	59 (52.2%)	33 (29.2%)	21 (18.6%)	NS
	Female	61 (55.5%)	29 (26.4%)	20 (18.1%)	
Participate in leisure activities with peers	Male	26 (22.2%)	32 (27.4%)	59 (50.4%)	NS
	Female	28 (23.3%)	36 (30.0%)	56 (46.7%)	
Discuss course content with instructors	Male	13 (11.1%)	36 (30.8%)	68 (58.1%)	NS
	Female	7 (5.8%)	35 (29.2%)	78 (65.0%)	
Discuss clinical experiences with instructors	Male	26 (22.8%)	46 (40.4%)	42 (36.8%)	NS
	Female	18 (16.2%)	41 (37.0%)	52 (46.8%)	

experiences and about one-third regarding career plans. However, more males than females seldom or never discussed such matters with peers. In contrast, about half of the males and females seldom or never interacted on a social level with peers by engaging in leisure activities.

Male and female respondents interacted less with their nursing instructors than with peers. Only 11.1 percent of the males and 5.8 percent of the females had frequent informal discussions with their instructors about course content, while similar percentages of male (58.1%) and female (65.0%) respondents indicated they seldom or never interacted with classroom instructors. A small percentage of male (22.8%) and female (16.2%) respondents claimed to have frequent discussions with their clinical instructors about their clinical experiences. However, fewer males (36.8%) than females (46.8%) indicated they seldom or never discussed clinical experiences informally with their instructors. Thus, there appears to be a greater tendency for males and females to talk with instructors about clinical experiences than about course content. This may suggest greater opportunities to come in contact with clinical instructors than with academic instructors.

Commentary

The male respondents showed a preference for science-based and technical nursing courses such as anatomy and physiology, surgical nursing, disease pathophysiology, operating room nursing and medical nursing. Although the female respondents indicated similar course preferences to the males, significantly more females than males also selected obstetrics and pediatrics as courses of interest. Both male and female respondents indicated least interest in religious studies, statistics and the history of nursing. These courses of least interest may have been perceived as having little practical application clinically to the care of hospitalized patients. Perhaps the male and female respondents favor courses in the curriculum in which knowledge can be directly applied to the nursing care of patients.

The male respondents were generally more interested in the nursing functions which relate to the technical and interpersonal skills associated with clinical nursing practice. The administrative nursing functions necessary for the daily operations of a hospital ward or unit were generally least selected. Thus, the male respondents appear to be more "task and people" oriented in terms of their preference for nursing functions while exercising only a small degree of interest in nursing related administrative responsibilities. Female students responded in a similar manner.

Both male and female respondents perceived their clinical nursing experiences as an important component of nursing education. Approximately three-fifths of the respondents were interested in the direct application of nursing knowledge to patient care; learned more in the clinical setting than from classroom instruction; did not feel clinical nursing was boring; and indicated that more time should be spent as students on the clinical area. The high level of interest expressed by the respondents toward clinical nursing practice supports the value of this component of the nursing curriculum as a means for student learning.

Male respondents interacted more with their peers on an academic level than on a social level. Over four-fifths of the males claimed to have discussed course content and clinical experiences with their peers, as opposed to only half of the males having some social interactions with peers. In addition, more than two-thirds of the males discussed their career plans with peers. Although most nursing schools had several male students enrolled, it is not known whether the male respondents interacted more with male peers or with female peers. Nonetheless, one may speculate that peer support exists for males in nursing education.

Both male and female respondents also demonstrated more informal interactions with their clinical nursing instructors than with classroom instructors. The smaller student/teacher ratio in the clinical setting could be an explanation for this finding.

Nursing as a Career

Table 4.15 presents data related to the respondents' interest in and challenge of nursing education, choosing nursing education again, future predictions of males in nursing and the recommendations of a nursing career to males and females.

Virtually all of the respondents indicated they were interested in their nursing programs. Nursing education was perceived as more challenging than expected by the same percentage of male and female respondents (66.6%). If given the opportunity to choose nursing

Table 4.15

Expectations and Interest in Nursing by Gender

VARIABLES	Male	Female	Chi square	P
INTEREST IN NURSING				
Interested	113 (96.5%)	114 (95.0%)		
Undecided	4 (3.5%)	5 (4.2%)	1.43	NS
Disinterested	0 (0.0%)	1 (0.8%)		
CHALLENGE OF NURSING EDUCATION				
More challenging	78 (66.6%)	80 (66.6%)		
Same as expected	29 (24.8%)	32 (26.7%)	0.09	NS
Easier than expected	10 (8.6%)	8 (6.7%)		
CHOOSE NURSING AGAIN				
Yes	107 (91.4%)	107 (89.2%)		
Undecided	5 (4.3%)	8 (6.7%)	0.14	NS
No	5 (4.3%)	5 (4.1%)		
MALES IN NURSING				
Increase	103 (89.6%)	104 (86.0%)		
Remain the same	11 (9.5%)	15 (12.3%)	0.80	NS
Decrease	1 (0.9%)	2 (1.7%)		
RECOMMEND NURSING TO MALES				
Yes	108 (92.3%)	102 (84.3%)		
Undecided	9 (7.7%)	16 (13.2%)	2.94	NS
No	---	3 (2.5%)		
RECOMMEND NURSING TO FEMALES				
Yes	108 (92.3%)	115 (95.0%)		
Undecided	9 (7.7%)	5 (4.1%)	0.36	NS
No	---	1 (0.9%)		

again, the majority of the male (91.4%) and female (89.2%) respondents would still choose to do so.

Similar percentages of male (89.6%) and female (86.0%) respondents predicted that the number of males in nursing would increase in the future. The most frequently stated reasons for anticipating more males in nursing included: better salaries; employment opportunities; possibilities of travel; job security; greater awareness of males in nursing; opportunities for advancement; and social acceptance of male nurses. More males (92.3%) than females (84.3%) would recommend nursing as a career to males, while a similar high percentage of male (92.3%) and female (95.0%) respondents would recommend nursing to females.

Commentary

It appears that both male and female respondents perceive nursing favorably in equal manner, despite the fact that nursing has been a non-traditional male occupation. The vast majority of the male and female respondents indicated an interest in nursing and would re-enter the profession if given the choice. In addition, over four-fifths of the respondents expected the number of males in nursing to increase in the future. Male respondents were slightly more optimistic in this regard than were female respondents. Although similar high percentages of male and female respondents would recommend a career in nursing to others, more males than females would recommend nursing to males. This re-affirms the confidence of males in nursing, as well as the acceptance of males by their female counterparts.

Career Aspirations

Future Working Status

Table 4.16 presents data related to the respondents' future employment plans about ten years hence and whether they would consider nursing administration as a career goal. More males (89.6%) than females (63.9%) expected to be working permanently full-time in nursing, in ten years. Conversely more females than males expected to be employed part-time, or on a temporary or casual basis in nursing.

More males (74.1%) than females (43.7%) expressed thoughts about nursing administration as a career goal. Twice as many females as males were either undecided or would not consider a career in nursing administration.

Nursing Specializations

Table 4.17 summarizes the respondents' choices for career future specializations. Emergency nursing was the top specialty area chosen by male respondents. This was followed by adult intensive care nursing, nursing administration, operating room nursing and nursing education. Of the five specialty areas ranked highest by the male respondents, three areas revealed statistically significant differences when compared to female responses. More males than females expressed interest in emergency nursing, nursing administration and adult intensive care.

Obstetrical nursing, operating room nursing, newborn nursery, pediatrics and emergency nursing were the top five nursing specialty areas of interest to female respondents. Statistically significant

Table 4.16

Career Plans by Gender

VARIABLES	Male	Female	Chi square	P
FUTURE WORKING STATUS				
Permanent full-time	103 (89.6%)	76 (63.9%)		
Permanent part-time	7 (6.1%)	32 (26.1%)		
Temporary full-time	1 (0.9%)	6 (5.0%)	20.07	≤0.0001
Temporary part-time	2 (1.7%)	1 (0.8%)		
Casual	2 (1.7%)	5 (4.2%)		
NURSING ADMINISTRATION				
Would consider	86 (74.1%)	52 (43.7%)		
Undecided	21 (18.1%)	37 (31.1%)	21.21	≤0.0001
Would not consider	9 (7.8%)	30 (25.2%)		

Table 4.17

Projective Nursing Specializations by Gender

NURSING SPECIALIZATIONS	Male		Female		
	frequency/rank		frequency/rank		P
General Surgery	13	7	14	7	NS
Adult Intensive Care	24	2	8	9.5	≤0.01
Coronary Care	0	24.5	2	20.5	NS
Operating Room	21	4	28	2	NS
General Medicine	14	6	9	8	NS
Geriatrics	4	15	6	12.5	NS
Orthopedics	7	10.5	3	18.5	NS
Urology	1	21.5	1	23.5	NS
Burn/Isolation	1	21.5	6	12.5	NS
Neuro-surgery	2	18	5	15.5	NS
Cardiology	2	18	5	15.5	NS
Obstetrics	3	16	33	1	≤0.0001
Gynecology	0	24.5	1	23.5	NS
Newborn Nursery	1	21.5	22	3	≤0.0001
Emergency	41	1	18	5.5	≤0.001
Nursing Administration	23	3	6	12.5	≤0.001
Public Health	11	8	18	5.5	NS
Child Psychiatry	5	14	1	23.5	NS
Adult Psychiatry	10	9	2	20.5	≤0.05
Pediatrics	6	12.5	21	4	≤0.005
Occupational Health	7	10.5	6	12.5	NS
Private Duty	2	18	4	17	NS
Inservice Education	6	12.5	3	18.5	NS
Respiratory	1	21.5	1	23.5	NS
Nursing Education	17	5	8	9.5	NS

differences by gender were evident for obstetrics, the newborn nursery and pediatrics--with more females than males selecting these areas.

Specialty Areas Least Considered

As shown in Table 4.18, the five specialty areas of least interest to male respondents in selecting a career path included gynecology, geriatrics, adult intensive care, obstetrics and child psychiatry. The interest of males in adult intensive care presents a paradox--it appears high on both the list of most preferred and least preferred specialties. Thus, males can be divided into two groups for this specialization. Female respondents indicated least interest in the specialty areas of geriatrics, adult psychiatry, burn/isolation, nursing administration, and child psychiatry. Gynecology and obstetrics showed statistically significant differences by gender. More males than females indicated they would not consider gynecology and obstetrics as future areas of employment.

Commentary

Despite the fact that both male and female respondents are training for the same occupation, the career aspirations of these respondents may suggest possible gender-related differences. A larger percentage of male respondents than females indicated that their future plans included permanent full-time employment in nursing; thoughts about an administrative nursing career; as well as the selection of acute care nursing specialties. Male respondents showed a much greater preference than females for nursing administration, emergency room nursing and adult intensive care, while more females than males indicated a preference for obstetrics, newborn nursery and

Table 4.18

Specialty Areas of Least Interest by Gender

NURSING SPECIALIZATIONS	Male		Female		
	frequency/rank		frequency/rank		P
General Surgery	1	24	4	18	NS
Adult Intensive Care	4	20	9	11.5	NS
Coronary Care	2	22	5	16.5	NS
Operating Room	4	20	8	13	NS
General Medicine	4	20	2	23	NS
Geriatrics	28	2	31	1	NS
Orthopedics	5	15.5	3	19.5	NS
Urology	10	8	10	8.5	NS
Burn/Isolation	10	8	20	3	NS
Neuro-surgery	1	24	2	23	NS
Cardiology	1	24	2	23	NS
Obstetrics	19	4	2	23	≤ 0.001
Gynecology	30	1	9	11.5	≤ 0.001
Newborn Nursery	9	10	3	19.5	NS
Emergency	5	15.5	14	4.5	NS
Nursing Administration	5	15.5	14	4.5	NS
Public Health	10	8	6	14.5	NS
Child Psychiatry	13	5	11	6	NS
Adult Psychiatry	21	3	27	2	NS
Pediatrics	7	12	2	23	NS
Occupational Health	8	11	6	14.5	NS
Private Duty	12	6	10	8.5	NS
Inservice Education	5	15.5	5	16.5	NS
Respiratory	5	15.5	10	8.5	NS
Nursing Education	5	15.5	10	8.5	NS

pediatric nursing. Thus, it appears that a higher percentage of female specialty choices included those areas generally associated with maternal and child care; whereas, a greater proportion of the males aspired toward those aspects of nursing emphasizing technical competence. The bipolar interest of males in adult intensive care, however, provides grounds for caution in interpreting male and female preferences. In any group of nursing students or registered nurses, there may be more individual factors than gender factors at play in determining attitudes and interests.

Satisfaction with Nursing Education

Tables 4.19 to 4.22 present data related to the respondents' level of satisfaction with their nursing program, program curriculum, nursing instruction and support services and peers. Statistical analysis using Chi square indicated no significant differences between male and female responses.

Nursing Program

Respondents of both genders had a similar level of satisfaction with their nursing programs (Table 4.19). Over 70 percent of the males and females were satisfied with their nursing programs, while slightly more females (16.5%) than males (12.8%) indicated some dissatisfaction. More females (69.2%) than males (59.8%) were satisfied with the policies and regulations in their nursing school, while about one-quarter of the males and one-fifth of the females remained neutral in their thoughts about school policies and regulations. More males (75.9%) than females (68.3%) were satisfied with the length of their nursing program, while similar percentages of

Table 4.19

Satisfaction with Nursing Program by Gender

SATISFACTION WITH...	GENDER	satisfied	neutral	dissatisfied	P
present nursing program	Male	82 (70.1%)	20 (17.1%)	15 (12.8%)	NS
	Female	85 (70.2%)	16 (13.3%)	20 (16.5%)	
policies and regulations in program	Male	70 (59.8%)	29 (24.8%)	18 (15.4%)	NS
	Female	83 (69.2%)	22 (18.3%)	15 (12.5%)	
length of nursing program	Male	88 (75.9%)	12 (10.3%)	16 (13.8%)	NS
	Female	82 (68.3%)	18 (15.0%)	20 (16.7%)	
amount of breaks and vacation	Male	70 (59.8%)	28 (23.9%)	19 (16.3%)	NS
	Female	76 (63.3%)	27 (22.5%)	17 (14.2%)	

both males (59.8%) and females (63.3%) were satisfied with the amount of vacation days and breaks from their nursing education.

Program Curriculum

The majority of the respondents were satisfied with their schools' curriculum (Table 4.20). Similar percentages of male (69.2%) and female (63.2%) respondents were satisfied with the types of courses offered by their nursing school. However, about twice as many females (13.7%) as males (6.8%) were dissatisfied with their nursing courses.

Over 70 percent of both genders were satisfied with the responsibilities of students in the clinical areas, while more females (63.5%) than males (58.9%) were satisfied with the amount of clinical experience received. Approximately 60 percent of the male and female respondents were satisfied with the number of examinations in their programs, while about one-half of the males and females indicated they were satisfied with the amount of study time needed to prepare for examinations. Exam preparation represented one area in nursing education where the largest percentage of the respondents (27.4% male and 25.8% female) expressed dissatisfaction.

Nursing Instruction

As shown in Table 4.21, about three-quarters of all respondents were satisfied with their relationships with nursing instructors and with the evaluations they received. Over half of the males and females were satisfied with the objectivity of their nursing instructors, while two-thirds of the respondents indicated they were satisfied with the quality of classroom instruction.

Table 4.20

Satisfaction with Program Curriculum by Gender

SATISFACTION WITH...	GENDER	satisfied	neutral	dissatisfied	P
types of courses offered by your nursing school	Male	81 (69.2%)	28 (23.9%)	8 (6.9%)	NS
	Female	74 (63.2%)	27 (23.1%)	16 (13.7%)	
responsibilities of students in clinical areas	Male	80 (72.7%)	19 (17.3%)	11 (10.0%)	NS
	Female	85 (76.6%)	12 (10.8%)	14 (12.6%)	
amount of clinical experience you receive	Male	66 (58.9%)	24 (21.5%)	22 (19.6%)	NS
	Female	73 (63.5%)	16 (12.9%)	26 (23.6%)	
number of examinations you receive	Male	72 (61.5%)	34 (29.1%)	11 (9.4%)	NS
	Female	78 (65.5%)	27 (22.7%)	14 (11.8%)	
amount of study time needed for examinations	Male	62 (53.0%)	23 (19.6%)	32 (27.4%)	NS
	Female	63 (52.5%)	26 (21.7%)	31 (25.8%)	

Table 4.21

Satisfaction with Nursing Instruction
by Gender

SATISFACTION WITH...	GENDER	satisfied	neutral	dissatisfied	P
relationships with nursing instructors	Male	94 (81.0%)	14 (12.1%)	8 (6.9%)	NS
	Female	91 (75.8%)	13 (10.8%)	16 (13.4%)	
the clinical evaluations received	Male	84 (73.7%)	22 (19.4%)	8 (6.9%)	NS
	Female	84 (73.7%)	18 (15.7%)	12 (10.6%)	
objectivity of nursing instructors	Male	60 (54.5%)	30 (27.3%)	20 (18.2%)	NS
	Female	69 (61.6%)	29 (25.9%)	14 (12.5%)	
quality of classroom instruction	Male	75 (64.7%)	23 (19.9%)	18 (15.4%)	NS
	Female	82 (68.3%)	22 (18.3%)	16 (13.4%)	

Support Services and Peers

As shown in Table 4.22, more females (61.7%) than males (53.4%) were satisfied with the availability of counselors in their nursing program, while a similar percentage of males (67.0%) and females (62.6%) were satisfied with the availability of laboratory equipment. About four-fifths of all respondents were satisfied with their relationships with peers.

Commentary

Male and female respondents' levels of satisfaction with nursing education were similar; both groups were generally satisfied with most aspects of their program. This may be attributed to the quality of nursing education they received.

Some dissatisfaction was expressed with the amount of time needed to prepare for examinations, as well as the length of program and time-off for breaks and vacation. One could speculate that most students like to get through their programs as quickly and as easily as possible.

Personality Characteristics

The respondents were asked to rate male and female nurses according to eight characteristics: natural aptitude for nursing, caring attitude, understanding of people, cooperativeness, empathy for others, career advancement, ability to express feelings and devotion to the profession. The data are summarized in Table 4.23.

Natural Aptitude for Nursing

Both male and female respondents appeared to attribute a natural aptitude for nursing more to females than males. About 30 percent of

Table 4.22

Satisfaction with Support Services
and Peers by Gender

SATISFACTION WITH...	GENDER	satisfied	neutral	dissatisfied	P
availability of counselors	Male	62 (53.4%)	42 (36.2%)	12 (10.4%)	NS
	Female	74 (61.7%)	34 (28.3%)	12 (10.0%)	
availability of laboratory equipment	Male	77 (67.0%)	20 (17.4%)	18 (15.6%)	NS
	Female	72 (62.6%)	19 (16.5%)	24 (20.9%)	
relationships with peers in nursing	Male	93 (79.5%)	13 (11.1%)	11 (9.4%)	NS
	Female	99 (83.2%)	8 (6.8%)	12 (10.0%)	

Table 4.23

Nursing Personality Characteristics by Gender

NURSING CHARACTERISTICS	GENDER	females superior	both genders equal	males superior	P
Natural aptitude for nursing	Male	35 (30.4%)	78 (67.8%)	2 (1.8%)	NS
	Female	38 (31.7%)	82 (68.3%)	0 (0.0%)	
Caring attitude	Male	24 (20.9%)	81 (70.4%)	10 (8.7%)	NS
	Female	29 (24.2%)	88 (73.3%)	3 (2.5%)	
Understanding of people	Male	13 (11.3%)	93 (80.9%)	9 (7.8%)	≤0.01
	Female	25 (20.8%)	93 (77.5%)	2 (1.7%)	
Cooperativeness	Male	2 (1.7%)	89 (77.4%)	24 (20.9%)	≤0.01
	Female	7 (5.8%)	105 (87.5%)	8 (6.7%)	
Empathy for others	Male	23 (20.0%)	87 (75.7%)	5 (4.3%)	NS
	Female	30 (25.0%)	88 (73.3%)	2 (1.7%)	
Career advancement	Male	8 (7.0%)	42 (36.5%)	65 (56.5%)	≤0.01
	Female	17 (14.2%)	72 (60.0%)	31 (25.8%)	
Ability to express feelings	Male	63 (54.8%)	48 (41.7%)	4 (3.5%)	
	Female	79 (65.8%)	36 (30.0%)	5 (4.2%)	NS
Devotion to the profession	Male	6 (5.2%)	85 (74.6%)	23 (20.2%)	≤0.01
	Female	14 (11.7%)	96 (80.0%)	10 (8.3%)	

respondents of both genders thought that female nurses were superior to male nurses. Virtually none of the respondents believed males to be superior to females in this regard.

Caring Attitude

Most of the male (70.4%) and female (73.3%) respondents considered a caring attitude to be equal in both genders. However, about a quarter of the respondents of both genders thought females were superior in this regard.

Understanding of People

About four-fifths of all respondents rated understanding of people as a characteristic equal to both genders. However, almost three times as many female respondents (20.8%) as male respondents (7.8%) considered their own gender to have a greater understanding of people.

Cooperativeness

The majority of the male (77.4%) and female (87.5%) respondents believed that both genders were equal in cooperativeness. However, more male respondents (20.9%) than female respondents (5.8%) believed in the superiority of their own gender.

Empathy for Others

Both male and female respondents appeared to attribute empathy for others as a characteristic more descriptive of females than males. About one-fifth of the males and one-quarter of the females rated females as superior to males.

Career Advancement

The greatest contrast occurred with regard to career advancement, where over half of the males and one-quarter of the females believed in the superiority of males over females. More females (60.0%) than males (36.5%) rated career advancement as equal to both genders.

Ability to Express Feelings

Respondents of both genders appeared to attribute the ability to express feelings more to females than males. Over half of the males and two-thirds of the females rated females superior to males in expression of feelings.

Devotion to the Profession

Over three-quarters of the respondents considered devotion to the profession as occurring equally among males and females. About twice the percentage of male respondents (20.2%) as female respondents (11.7%) considered their own gender to have a greater devotion to nursing.

Commentary

The majority of the respondents considered both males and females equal in personality traits supportive of nursing except for the ability to express feelings. However, a commonly held view by a minority of both male and female respondents was that females were superior to males in natural aptitude for nursing, caring attitude, understanding of people and empathy for others. This may suggest the existence of gender-stereotyped views by some male and female nursing students. Conversely, more males than females considered their own gender to be superior in cooperativeness, devotion to the profession and career advancement. Thus, it would appear that some males may have a slightly different image of themselves as nursing students than do females. As more males enter the nursing profession in the future, one may speculate that some traditional masculine characteristics may also become associated with nursing--perhaps decreasing the gender-stereotypical views of nurses which presently exist.

Perceptions of the Nursing Role

Interactions with Co-workers

As shown in Table 4.24, about four-fifths of the male and female respondents believe male nurses make as good bedside nurses as females. A small percentage of male (15.9%) and female (18.5%) respondents rated female nurses as more suited to bedside nursing, while virtually no one felt males were better suited to this area. About three-quarters of all respondents indicated male nurses prefer to work equally with nurses of either gender, while more males (31.0%) than females (10.9%) felt female nurses prefer to work with male co-workers.

Interactions with Patients

About two-thirds of all respondents indicated that both male and female nurses can provide nursing care equally to both genders of patients (Table 4.24). However, more female (30.2%) than male (21.9%) respondents felt that male nurses prefer to provide nursing care to male patients, while more male (26.3%) than female (11.0%) respondents indicated female nurses prefer to care for female patients.

Table 4.24

Work Preferences by Gender

NURSE PREFERENCE	GENDER	Male Nurses	Female Nurses	Both Genders Equal	P
More suited to bedside nursing	Male	1 (0.9%)	18 (15.9%)	94 (83.2%)	NS
	Female	2 (1.7%)	22 (18.5%)	95 (79.8%)	
Female nurses prefer to work with	Male	35 (31.0%)	25 (22.1%)	53 (46.9%)	0.001
	Female	13 (10.9%)	31 (26.1%)	75 (63.0%)	
Male nurses prefer to work with	Male	8 (7.0%)	17 (14.9%)	89 (78.1%)	NS
	Female	16 (13.9%)	13 (11.3%)	86 (74.8%)	

PATIENT PREFERENCE	GENDER	Male Patients	Female Patients	Both Genders Equal	P
Female nurses prefer to provide care to	Male	9 (7.9%)	30 (26.3%)	75 (65.8%)	0.01
	Female	14 (11.9%)	13 (11.0%)	91 (77.1%)	
Male nurses prefer to provide care to	Male	24 (21.1%)	8 (7.0%)	82 (71.9%)	NS
	Female	35 (30.2%)	5 (4.3%)	76 (65.5%)	

Personal Qualities of Male and Female Nurses

Tables 4.25 and 4.26 present the personal qualities of male and female nurses as elicited from the respondents by an open-ended question.

As shown in Table 4.25, the male respondents' five most frequently mentioned qualities of a male nurse included caring, empathy, physical strength, understanding and good communication. Similarly, the male respondents perceived female nurses as being caring, having empathy, compassion, good communication, and patience. Male respondents used 21 similar adjectives to describe both male and female nurses.

As shown in Table 4.26, the female respondents' perceptions of a male nurse included caring, empathy, understanding, knowledge and compassion as the five most frequently mentioned personal qualities. In addition, female respondents perceived female nurses as being caring, empathic, understanding, professional and responsible. A total of 23 similar adjectives were used by female respondents to describe the personal qualities of both male and female nurses.

Additional Comments

The comments made by male and female respondents are listed in Appendix E. A large percentage of the comments indicated an interest in the topic of males in nursing. Several comments from the male and female respondents related to the conditions that would facilitate or impede the entry of males into nursing. Career advancement, personal rewards, employment opportunities and job security were identified as facilitators for males in nursing. Barriers to entry were identified

Table 4.25

Perceived Personal Qualities of Male and Female Nurses by Male Respondents

Male Nurses			Female Nurses		
QUALITIES	frequency/rank		QUALITIES	frequency/rank	
Caring*	37	1	Caring*	52	1
Empathy*	15	2	Empathy*	19	2
Physical strength	12	3	Compassion*	11	3.5
Understanding	11	4	Good communication*	11	3.5
Good communication*	8	5	Patience*	9	5
Patience*	7	6	Mother figure	7	6.5
Compassion*	6	7.5	Intelligent*	7	6.5
Knowledgeable*	6	7.5	Knowledgeable*	6	8.5
Honest*	4	9.5	Good listener*	6	8.5
Dedicated*	4	9.5	Clean	5	10
Assertive*	3	16	Honest*	4	12
Organized*	3	16	Devoted*	4	12
Kind*	3	16	Dedicated*	4	12
Competent*	3	16	Gentle*	3	16.5
Objective	3	16	Hard working	3	16.5
Taking control*	3	16	Assertive*	3	16.5
Decisive	3	16	Motivated	3	16.5
Gentle	3	16	Good health	3	16.5
Good listener*	3	16	Sense of humor*	3	16.5
Sense of humor*	3	16	Emotional	2	25
Intelligent*	3	16	Trusting	2	25
Considerate	2	25.5	Competent*	2	25
Strong	2	25.5	Sympathetic	2	25
Concerned	2	25.5	Organized*	2	25
Mature*	2	25.5	Nurturant	2	25
Devoted*	2	25.5	Flexible*	2	25
Easy going*	2	25.5	Kind*	2	25
Sincere	2	25.5	Responsible	2	25
Loving	2	25.5	Helpful	2	25
Helpful	1	32	Taking control*	2	25
Flexible*	1	32	Easy going*	1	32.5
Professional*	1	32	Professional*	1	32.5
Realistic	1	32	Mature*	1	32.5
Friendly*	1	32	Friendly*	1	32.5

* Denotes perceptions common to both male and female nurses.

Table 4.26

Perceived Personal Qualities of Male and Female Nurses by Female Respondents

Male Nurses			Female Nurses		
QUALITIES	frequency/rank		QUALITIES	frequency/rank	
Caring*	61	1	Caring*	76	1
Empathy*	25	2	Empathy*	30	2
Understanding*	16	3	Understanding*	24	3
Knowledgeable*	10	4	Professional*	10	4.5
Compassion*	9	5	Responsible*	10	4.5
Devoted*	8	6.5	Patient*	9	7
Professional*	8	6.5	Compassion*	9	7
Responsible*	7	8	Knowledgeable*	9	7
Intelligent*	6	10.5	Kind*	8	9
Assertive*	6	10.5	Gentle*	7	11
Confident*	6	10.5	Organized*	7	11
Kind*	6	10.5	Assertive*	7	11
Trustworthy	5	14	Intelligent*	6	15.5
Organized*	5	14	Good communication*	6	15.5
Gentle*	5	14	Devoted*	6	15.5
Friendly*	4	17	Sensitive	6	15.5
Good communication*	4	17	Honest*	6	15.5
Non-judgemental*	4	17	Non-judgemental*	6	15.5
Efficient*	3	20	Nurturant	4	19.5
Concerned	3	20	Mothering instinct	4	19.5
Patient*	3	20	Efficient*	3	22
Competent	2	22.5	Mature*	3	22
Dedicated	2	22.5	Confident*	3	22
Honest*	1	29	Conscientious	2	25.5
Sense of humor	1	29	Cheerful	2	25.5
Cooperative	1	29	Loyal*	2	25.5
Loyal*	1	29	Friendly*	2	25.5
Healthy	1	29	Strong	1	31
Warm	1	29	Skillful	1	31
Genuine*	1	29	Genuine*	1	31
Respecting	1	29	Supportive	1	31
Motivated	1	29	Smiling	1	31
Rational	1	29	Confident	1	31
Mature*	1	29	Out going	1	31

* Denotes perceptions common to both male and female nurses.

as discrimination, lack of information on the existence of males in the profession as well as the effeminate image of the male nurse.

Commentary

The majority of male and female respondents indicated that males are as competent nurses as females. This perhaps shows an acceptance of males into nursing education by the female respondents. Both male and female respondents had favorable attitudes toward working with the opposite gender of co-workers and patients. The largest percentage of male and female respondents indicated that it did not matter to them whether they worked with a male or female nurse. In addition, both genders of respondents indicated the appropriateness of male nurses caring for male and female patients.

The personal qualities most frequently used to describe male and female nurses were caring and empathy. In addition, both male and female nurses were described as: knowledgeable, compassionate, devoted, professional, intelligent, assertive, kind, organized, gentle, patient and honest. Thus, it appears that these qualities were perceived as neutral (or androgynous) rather than more typical of one gender than the other.

CHAPTER 5

DISCUSSION OF FINDINGS

The major findings of the study are discussed in relation to seven issues: female image of nursing; obstetrics in nursing education; recruitment of males into nursing; career prospects for male nurses; attrition of males from nursing education; baccalaureate entry to practice; and pedagogy.

Female Image of Nursing

Traditionally, organized nursing care has been provided by females. The nursing role has evolved with a feminine influence which has contributed to the perception of nursing as a "female" profession. Evidence for the continued existence of such gender stereotyping exists even among the nursing students. About one-third of both male and female respondents in this study felt that females were superior in their natural aptitude for nursing, while only two percent of the respondents felt that males had natural superiority.

This gender stereotyping is especially interesting since it occurs in other occupations also, such as the military, engineering, and elementary school teaching. Can and should practitioners of such professions, be regarded as asexual? It is interesting to note how our popular culture--movies, theatre and novels--affirm the stereotypes of female nurses. The nursing profession may have to appeal to its artistic community to present counter images which better reflect reality as it is today, and as we would wish it to be advanced tomorrow.

Role strain in male nurses is a natural outcome of gender stereotyping (Greenberg and Levine, 1971; Bush, 1976; Schoenmaker and

Radosevich, 1976). The findings of this study confirm that male nursing students tend to aspire to those specialty areas in nursing that minimize role strain, such as acute care areas (emergency nursing, adult intensive care and operating room nursing), administration and nursing education, while avoiding such areas as gynecology, obstetrics, pediatrics and the newborn nursery. However, little direct evidence of role strain was reported by the male respondents in this study. With the exception of gynecology and obstetrics, the males were satisfied with most aspects of their nursing education. Thus, the question must be raised as to whether or not role strain, if it exists for males, emerges after training, when the males are actively involved in nursing practice.

Obstetrics in Nursing Education

A large percentage of the male respondents indicated that they were satisfied with their nursing programs--curriculum, instruction and support services. Female respondents indicated a similar level of satisfaction. Since nursing education has traditionally been viewed as a female discipline, the satisfaction expressed by the males provides strong support for the continuence of co-education in nursing. Also, the majority of the male and female students stated that they would recommend nursing as a career to males, thus further endorsing the nursing education which they were receiving.

The above generalization notwithstanding, some problems with obstetrics existed for male nursing students. Few males, in direct contrast to the female students, expressed a liking for the obstetrical course, and virtually none selected this area as a potential career specialization. Male reluctance may lie in the nature of obstetrical nursing tasks associated with childbirth and the post-partum care of the patient. This conclusion is consistent with the literature (Annas, 1981; Brenda, 1981).

If obstetrics is an area in nursing where gender differences play a part, this might be turned to an advantage. Traditionally, the needs of the mother have been the major focus of attention during the labor and delivery experience. Perhaps male nurses could better relate to the male-father experience, and make a unique contribution to meeting the needs of the fathers during the birth process. Thus, a re-examination of the nursing role performed by males in this area is called for.

Recruitment of Males into Nursing

The data on parental occupation and education suggest that male recruitment into nursing may occur mainly from individuals with lower to middle class backgrounds. A nursing career may represent a more prestigious occupation than those held by their parents, thus encouraging the entrance of males into the profession. In addition, the urban locales where the majority of male respondents grew up may offer more favorable recruitment foci than rural areas. Although no literature on male recruitment into nursing was found, the above demographic characteristics on male nursing students in this study are consistent with the findings of Williams (1973).

Most males in this study first thought of entering nursing in their twenties and were influenced by friends and relatives who were nurses. It remains unclear as to why males tend to think about entering nursing at this age. One may speculate that in high school nursing may not be considered seriously as an occupation because of its feminine associations. A high school male considering nursing might reject the possibility because he fears that he would be teased and ridiculed if he decided to pursue that career. Following high school and exposure to other life experiences, males who pursue a nursing career may have been motivated sufficiently to rise above the public's stereotype and be encouraged by friends and relatives to do so. One may speculate that males interested in, and suitable for, nursing careers may be lost to the profession as a result of alternative career decisions made upon high school graduation. This points to the need to portray nursing as a two gender profession and to more actively recruit males while they are in high school.

Career Prospects for Male Nurses

The trend in male enrollments in nursing education indicates slow but steady growth; more males are considering nursing as a potential career choice. While the door is clearly open to males in nursing, their future prospects within the profession remain in question. As more males develop careers in nursing, research might reveal their preferred career paths and specializations. The findings of this study indicate a preference among male nursing students for acute care specialty areas (emergency nursing, adult intensive care and operating room nursing), nursing administration and nursing education, in comparison to the female nursing students who favor obstetrics and pediatrics. These differing career preferences lend support to Auster's (1979) assertion that males are not likely to staff the nursing profession in the same way as females. An interesting policy question is whether male neophytes should be groomed for specialization in acute care areas and administration, or whether steps should be taken to enhance the appeal of other career areas for men. Acute care nursing is seriously understaffed at present and the need exists to recruit actively for it. If males demonstrate an adaptive coping ability in acute care settings, this could have a positive effect on career longevity and satisfaction in this area.

Given that males traditionally maintain continuous employment--as opposed to females who more often leave work periodically as a result of childbearing and rearing--males may have an edge in career advancement in nursing. This fact, together with career interest in acute care, administration, and nursing education, may result in a male "elite" in nursing in the foreseeable future. Such a development would be a radical departure from the present image of female dominance.

Attrition of Males from Nursing Education

According to Schoenmaker (1976) and Vaughn and Johnson (1977), withdrawal rates from nursing education for male nursing students are high. This is supported by an analysis of male and female enrollment and graduation comparisons (see Table 2.1). Interestingly, in this study, a similar percentage of male (63.2%) and female (57.1%) respondents indicated having some thoughts about quitting their nursing program--in spite of the fact that the majority of both males and females found their nursing programs satisfying, interesting and challenging. In addition, over 90 percent of the male and female respondents indicated that they would choose a nursing career again and would recommend nursing to others. One may conclude that certain factors exist, independent of nursing education, which influence males to withdraw from their nursing programs.

The findings of this study suggest that for many males, nursing is a second career. However, it has not been determined whether these males are dissatisfied with their previous occupation and as a result seek out a nursing career as a means of escape, or whether they clearly have an interest in becoming a nurse and seek nursing education through a desire to fulfill this ojective. Thus, male students may require extra care in maintaining motivational levels during their nursing education programs. Such care could take the form of counselling services and special male support groups.

Baccalaureate Entry to Practice

The demographic data indicate that males entering nursing education are in their mid-twenties, have an average or below average high school record and are married. In addition, the majority of the male respondents (84.5%) enrolled in diploma programs and indicated satisfaction with the length of program (75.9%). Given these characteristics, the baccalaureate entry to practice position may have a negative influence on males entering nursing in the future. Clearly, one present advantage of diploma nursing education is the relatively short program--two to three years, depending on the institution. As a result, fewer males may consider nursing education if a baccalaureate degree becomes mandatory. This may affect the direction of nursing in the twenty-first century, as male recruitment could potentially decline at a time when the trend is toward increases in males in nursing, unless an interest can be stimulated in baccalaureate nursing education. One possible way of doing so is to associate the specialty areas of acute care nursing, nursing administration and nursing education (areas of high male interest) with baccalaureate programs.

Pedagogy

The male nursing students, and to a lesser extent the female students in this study, were predominantly adult learners having entered their programs several years after the usual age of high school graduation and after previous education and work experiences. Although about two-thirds of the male and female respondents were satisfied with classroom instruction, they expressed a greater interest in the conveyence of nursing knowledge through clinical practice. This may have implications for the instructional model of nursing education. Teaching strategies that facilitate the learning needs of adult students (andragogy) are important--particularly, the active participation of students in the educational process, including informal discussion, simulations, role playing and small group formats (Knowles, 1980).

The nursing instructor/student relationship is also worthy of consideration. Although about 80 percent of the male and female respondents indicated that they were satisfied with their instructor/student relationships, only about one-fifth of the respondents discussed clinical experiences with instructors and even fewer discussed course content with them. Perhaps both instructors and students would benefit from increased interaction in order to enhance and facilitate the learning process.

Summary

The findings of this study have been discussed in relationship to seven issues which have implications for males in nursing education. The image of nursing was addressed in terms of gender stereotyping, as well as the need for the profession to be perceived in an asexual manner. While male satisfaction with nursing education reinforces the viability of nursing as a career for males, obstetrical nursing was identified as a problematic area for males in terms of their acceptance in the nursing role. An expanded role for males in this area, focusing on the needs of the expectant father, was proposed. Demographic characteristics relevant to recruitment of males were addressed, as well as the targeting of high school males as a potential recruitment source. Career aspirations of males were suggestive of future employment patterns in acute care settings, administration and nursing education. In addition, male students may require assistance to maintain their motivational levels during nursing education. The baccalaureate entry to practice issue was found to have potential implications for future male recruitment into nursing. Finally, the educational process used in nursing education was discussed in relation to principles of adult education. These are just some of the issues which appear to arise from the study.

CHAPTER 6

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter provides a summary of the purpose, methodology and findings of the study. As well, the conclusions of this study and the recommendations for nursing education, practice and research are highlighted.

Summary

Purpose of the Study

The purpose of this study was to examine the perceptions of nursing education held by male nursing students. The six research questions were: 1. what are the demographic characteristics of male nursing students?; 2. what interests do male nursing students express in nursing education?; 3. what attitudes do male nursing students hold toward nursing as a career?; 4. what is the level of satisfaction of male nursing students with nursing education?; 5. what image of themselves as nurses is held by male nursing students?; and 6. do male nursing students differ from a comparative sample of female students in any of the above characteristics?

Methodology

A questionnaire, consisting of 72 survey items divided into five sections, was utilized for the study. The questionnaire, along with a cover letter, was delivered to a target population of 328 nursing students--164 male and 164 female students at 13 schools of nursing in Alberta. All male nursing students received a questionnaire. The female students were selected equal to the number of male students by year and type of program, by matching random numbers to the names of females as they appeared on classlists at each institution. Seven to ten days following the distribution of the questionnaires, follow-up letters were sent to the students requesting the return of completed questionnaires. Data were collected over a six week period by procedures agreeable to each of the 13 directors of nursing education in the province. A total of 238 completed questionnaires were received--117 male (71.3 %) and 121 female (73.7%). The responses to the survey were analyzed by use of descriptive and nonparametric statistics.

Findings

Demographic characteristics. The mean age of the male respondents was 28.2 years and of the females 24.6 years. Forty percent of the males compared to 26.4 percent of the females were married. Sixty-five percent and 40.8 percent of the males and females respectively had urban roots. About half of the male and female respondents' fathers and about a third of their mothers did not complete high school. The two largest occupational groups of the male respondents' fathers were tradesmen (15.4%) and farmers (13.7%) and for female respondents--farmers (14.9%) and professionals (14.9%). About a one-third of the male (39.3%) and female (33.9%) respondents' mothers were homemakers.

More males (55.8%) than females (44.5%) received average or below average grades in high school, while fewer males (47.0%) than females (74.8%) completed high school in three academic years. More males (47.9%) than females (38.3%) completed postsecondary education programs. In addition, more males (89.7%) than females (65.6%) had at least one year of work experience prior to entering nursing education.

Interest in nursing education. Males thought about entering nursing at a later stage of development than did females. About 71 percent of the males first thought about entering nursing education in their early twenties compared to about 23 percent of the females. More males (47.0%) than females (33.1%) were influenced to enter nursing by friends and relatives who were nurses, while similar percentages of males (71.3%) and females (67.5%) had relatives in nursing. The opportunity to help people was the most influential factor for the male (87.2%) and female (89.3%) respondents entering nursing education, followed by employment opportunities (82.1 percent male and 74.4% female) and income (76.9 percent male and 69.4 percent female).

Approximately two-thirds of the male and female respondents indicated that nursing education was more challenging than expected. The majority of the males (96.5%) and females (95.0%) indicated an interest in their nursing programs. However, similarly high percentages of males (63.2%) and females (57.1%) had harbored thoughts about quitting at some point in their program.

The subjects of greatest interest to the male respondents were anatomy and physiology (48.7%), surgical nursing (26.5%), and disease pathophysiology (23.9%). The female respondents selected anatomy and physiology (40.5%), obstetrics (33.9%), and disease pathophysiology (29.7%) as courses of interest. Subjects of least interest to the respondents included: religious studies (31.6% male and 38.0% female); statistics (31.6% male and 35.5% female); and history of nursing (28.2% male and 26.4% female). The preferred nursing tasks for the male respondents included changing dressings (52.1%), interpreting medical procedures to patients (49.6%) and talking with a dying patient (46.1%). Female respondents preferred to hold a lonely patient's hand (58.7%), perform post-operative care (53.7%) and change dressings (47.1%).

Over half of the male and female respondents were more interested in clinical nursing practice than in classroom theory; they agreed that more time should be spent in the clinical area, and that they learned more about nursing from clinical practice than from classroom theory. In addition, over half of the male and female respondents frequently discussed course content and clinical experiences with peers. However, only about 10 percent of the male and female respondents discussed course content with instructors and about 20 percent discussed clinical experiences with instructors. About half of the males and females seldom or never participated in leisure activities with peers, while more females (81.0%) than males (71.0%) frequently or occasionally discussed career plans with peers.

Attitudes toward nursing. If given the opportunity to choose nursing education again, a similar percentage of males (91.5%) and females (89.2%) would do so. Over 85 percent of the male and female respondents indicated that the number of males in nursing would increase in the future. More male (92.3%) than female (84.3%) respondents would recommend nursing as a career to other males. Only 0.7% of male respondents and 3.4% of female respondents felt that nursing would not be a satisfying career. More males (74.1%) than females (43.7%) would also consider nursing administration as a possible career goal. In addition, more males (89.6%) than females (63.9%) expected to be working permanent full-time in nursing ten years after graduation. Future career aspirations of the male respondents included: emergency nursing (35.1%), adult intensive care (20.5%), nursing administration (19.6%), operating room nursing (17.9%) and nursing education (14.5%). Female respondents aspired to work in obstetrics (27.2%), operating room nursing (23.1%), newborn nursery (18.2%) and pediatrics (17.4%). Specialization areas of least interest to the male respondents were gynecology (25.7%), geriatrics (23.9%) and obstetrics (16.2%). Female respondents were least interested in geriatrics (25.6%), adult psychiatry (22.3%) and burn/isolation nursing (16.5%).

Satisfaction with nursing education. About 70 percent of the male and female respondents were satisfied with their overall nursing education. The male respondents were most satisfied with their relationships with nursing instructors (81.0%), relationships with peers (79.5%) and the length of the nursing program (75.9%). Female respondents were most satisfied with peer relationships (83.2%), the responsibilities of students in the clinical area (76.6%) and relationships with nursing instructor (75.8%). About one-quarter of the male and female respondents were dissatisfied with the study time needed to prepare for examinations.

Personality characteristics. About three-quarters of all respondents indicated that male and female nurses were similar with respect to a caring attitude, empathy for others, understanding of people and devotion to the profession. About one-third of all respondents indicated that female nurses were superior to male nurses in their natural aptitude for nursing. Likewise, over half of the male and female respondents indicated that female nurses were superior to male nurses in their abilities to express feelings. More male (56.5%) than female (25.8%) respondents indicated that male nurses were superior to female nurses for career advancement. About four-fifths of the respondents indicated that both male and female nurses were equally suited for bedside nursing. However, slightly more female (30.2%) than male (21.1%) respondents indicated that male nurses prefer to provide nursing care to male patients. Male respondents perceived male nurses as being caring, empathic and physically strong and female nurses as being caring, empathic and good communicators. Female respondents perceived both male and female nurses as being caring, empathic and understanding.

Differences between male and female nursing students. Differences between male and female respondents were evident in four areas: demographic characteristics; course interests in nursing education; career aspirations and goals; and the image of male and female nurses. Interest in nursing, as well as the decision to enter nursing education occurred much later for males than females. The median age for males in nursing education was 27 years compared with 22 years for females. As a result of their age, more males than females were married and had employment histories. While more males than females took longer than the three traditional years to complete high school, they also tended to have completed other postsecondary education programs prior to entering nursing. In addition, a disproportionate percentage of males (65.0%) than females (40.0%) came from urban centers.

Although both male and female respondents favored the courses in the curriculum which have a science or technical orientation--anatomy and physiology, disease pathophysiology and surgical nursing, significantly more females than males expressed interest in the obstetric and pediatric courses. Similarly, more males than females aspired to those nursing specializations which connotate technical competence--emergency nursing and adult intensive care, while females had a significantly stronger interest than males for obstetrical and pediatric nursing. While both genders anticipated long term employment in nursing, more males than females expected to be working full-time and indicated greater preference for nursing administration as a career goal.

The male respondents also had a slightly different image of themselves as nurses than did the females. More males than females indicated physical strength as a quality of males in nursing and that male nurses were superior to female nurses for career advancement.

Conclusions

Throughout time, the nursing role is one which has been predominantly occupied by females. However, historically the male presence within this role has always existed and dates as far back as ancient times. Only since the Victorian era of the nineteenth century was the suitability of this role for males challenged by society and hence, by nursing and health care institutions. As a result, males experienced discrimination in their ability to assume a nursing role due to the societal norms which rejected males as nurses. In the twentieth century, males continued to experience a lack of acceptance into the nursing role in terms of discriminatory practices limiting their access to nursing education and imposing constraints on course content and areas of practice. Thus, male enrollments into nursing education remained low for obvious reasons.

Despite barriers imposed on men in the last century, the present situation is one of increasing male enrollment into nursing education and increasing support of males in nursing. Largely, the increased re-emergence of males into nursing has occurred as a result of diminishing occupational stereotypes which, in part, have been reflective of changes in societal expectations. However, lack of application of the long history of males in nursing perpetuates the perception of the male nurse as an anomaly. The belief remains that nursing is not a suitable career for males. As a result of the continued gender stereotyping which has afflicted nursing, males entering nursing have to contend with this issue.

However, justification for gender stereotyping has proven to be unwarranted in terms of past research studies on male nursing students. The findings of this study further support this assertion as a result of the fact that relatively few significant differences were found to exist between male and female nursing students. The males in this study were interested and satisfied with their education and were anticipating the establishment of a long-term career in nursing. In essence, males perceived nursing as a viable career.

Those males who assume a nursing role must not be seen as an anomaly within the profession as a result of gender, but rather as a minority in terms of their total numbers. There is no evidence, either historically or in the research literature, to support the stereotyped notion that males do not belong in nursing. As current enrollment trends are indicative of increasing numbers of males in nursing in the future, this necessitates that the profession acknowledge and resolve the gender issue. This is one of the most important issues affecting the nursing membership and yet it remains largely unrecognized, perhaps as a result of the lack of male nursing leaders to bring this issue to the forefront of the professional body.

The nursing profession must support the image of nursing as a two gender profession. It must ensure equitable treatment of males in terms of recruitment, education, practice, employment and career advancement opportunities. Male nurses, like female nurses, have a valuable contribution to make to the profession and to humanity. It is their right and professional obligation to be able to do so. As long as males remain a minority within the profession, the potential for discrimination exists, as it does for any minority group. Nursing as a profession must guard against such an occurrence. Additionally, as females are increasingly choosing non-traditional "female" occupations, the resolution of the "male nurse" issue may contribute to a pervasive soocial movement towards un-doing gender discrimination. Thus, the recognition and acceptance of males into nursing is vital not only to the profession but also to society.

Recommendations

Based on this study, a number of recommendations can be suggested which correspond to the areas of nursing education, nursing practice and nursing research.

Nursing Education

1. The presence of males in nursing should be portrayed in all recruitment literature and advertisements on nursing education published by professional nursing associations, universities and schools of nursing.

2. The professional nursing association should ensure that career and high school counselors actively promote nursing as a career for men by increasing their awareness of the presence of males in nursing.

3. Schools of nursing should actively recruit qualified male nursing instructors.

4. It is recommended that the provincial nursing associations consider the potential implication of decreasing male student enrollment into nursing as a result of the baccalaureate entry to practice position.

5. Historical perspectives on males in nursing and nursing education should be included in the nursing curriculum.

6. It is recommended that nursing educators evaluate the impact of alternative teaching methods on nursing students in order to identify instructional methods which best facilitate student learning needs.

7. It is recommended that male support groups and services be established in schools of nursing.

8. When providing clinical experiences to nursing students, patient rights must be respected when preference for the nurse's gender is expressed--for example, in the area of obstetrical nursing.

Nursing Practice

1. Career opportunities within nursing should occur equally for both male and female nurses without prejudice, based on merit--accumulation of appropriate work experience and education.

2. All patient care assignments for male and female nurses should be allotted in an equitable manner without consideration to gender and in consideration of individual nurse's preference.

3. It is recommended that a committee be established by the provincial nursing association to address issues related to males in nursing--such as male recruitment into nursing and baccalaureate entry to practice.

Nursing Research

1. A study on male attrition rates from nursing education is necessary to determine what factors influence their decision to leave nursing education.

2. Research focusing on the motivational factors for males entering nursing may provide further information on male recruitment.

3. A study of the perceptions of the male nurse held by the general public and health care personnel may provide information about the image associated with males in nursing.

4. A study on the perceptions of a nursing career held by male high school students may identify factors relevant to male recruitment into nursing education.

5. Further research on males in obstetrical nursing is needed to identify why males do not aspire to careers in this area.

6. A study examining males in nursing education by year and type of program is necessary to determine if perceptions of nursing education are affected by these variables using larger samples of males and samples from across provinces in Canada.

7. Cross-cultural studies on males in nursing education in other countries may yield information which differs from males in Canada.

8. A study on the career patterns of males in nursing may provide information on future staffing of health care facilities by males.

9. An indepth phenomenological study of a sample of male and female nursing students may provide insights which extend beyond those obtainable through a survey methodology.

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APPENDICES

APPENDIX A

Correspondence

September 3/1987
14327 - 92 A Avenue
Edmonton, AB
T5R 5E3

(403) 486-06J3
477-4920

Dear

I am a graduate student at the University of Alberta and am currently working on my masters degree thesis. The focus of my project is on the "Perceptions of the Nursing Profession held by male and female nursing students".

In order to complete the data collection phase, I am asking for your permission and assistance to arrange for the distribution of the questionnaires to all male students in all levels or years of your nursing program as well as to a proportionate number of female nursing students.

On August 14, a copy of the questionnaire was sent to you for your review. Enclosed is the ethical review approval by the University of Alberta, as well as the names of my supervisory committee.

I am planning to deliver the questionnaires to your educational institutions by mid-October.

At your earliest convenience, could you please provide me with your 1987 - 1988 enrollment figures by gender and year of program so that I can make sufficient arrangements in terms of the numbers of questionnaires required.

I will be in correspondence with you and will telephone you if any concerns or questions regarding this project arise.

I sincerely thank you for your kind attention.

Very Sincerely Yours,

Gary D. Okrainec RN M.Ed.

Grant MacEwan
Community College

Mailing Address
P.O. Box 1796, Edmonton
Alberta, Canada T5J 2P2

November 12, 1987

Gary Okrainec
14327 - 92 A Avenue
Edmonton, Alberta
T5R 5E3

Re: 1987 Student Statistics

Students enrolled in the Diploma Nursing Program - Yr I

Male = 8
Female = 70
Total = 78

Students enrolled in the Diploma Nursing Program - Yr II

Male = 11
Female = 66
Total = 77

Hopefully the above provides the information you require.

Norma Young

Norma Young
Program Head
Diploma Nursing Program

/brt

Jasper Place Campus
10045 - 156 Street
T5P 2P7
(403) 483-4411

Cromdale Campus
8020 - 118 Avenue
T5B 0R8
(403) 474-8521

Mill Woods Campus
7319 - 29 Avenue
T6K 2P1
(403) 462-5501

Grande Prairie
Regional College

October 27, 1987

Gary Okrainec R.N.
14327 - 92 Avenue
EDMONTON, AB
T5R 5E3

Dear Mr. Okrainec:

In response to your letter of October 15, the Diploma Nursing Program at Grande Prairie Regional College has twenty-three first year students of which twenty-two are female and one is male. We also have twenty-three second year students, all are female.

I trust this information is helpful.

Sincerely,

Rhonda Doucette
Administrative Assistant
Department of Nursing Education

/rd

10726 - 106 AVENUE, GRANDE PRAIRIE, ALBERTA, CANADA T8V 4C4 TELEPHONE (403) 539-2911 keyano college

August 19, 1987

Mr. Gary Okrainec
14327 - 92 A Avenue
Edmonton, Alberta
T5R 5E3

Dear Mr. Okrainec:

In response to your letter of August 14, 1987, here are the enrollment figures you requested:

The 1986 - 88 Nursing Program consists of 2 males and 20 females.

The 1987 - 89 Nursing Program consists of 6 males and 18 females.

If you have any further questions, please feel free to call or write.

Yours truly,

Lynne Hunt

for Robert Morris
Dean of Nursing

RM:LBH

8115 Franklin Avenue, Fort McMurray, Alberta T9H 2H7 Telephone (403)791-4800

LETHBRIDGE
COMMUNITY COLLEGE

Department of Nursing
Telephone: (403) 320-3425
3000 College Drive South
Lethbridge, Alberta T1K 1L6

September 29, 1987

Mr. Gary Okrainec
14327 - 92 A Avenue
Edmonton, AB
T5R 5E3

Dear Mr. Okrainec:

In response to your request for numbers of male students in our nursing program, I am sending the following data.

Second year Nursing	4 males 66 females
First year Nursing	7 males 66 females

I trust this will be helpful.

Yours truly,

Jeanne Coxson

Jeanne Coxson, RN MA

JC/sem

MEDICINE HAT COLLEGE

1987-10-13

Mr. Gary Okrainec, R.N.
14237 - 92 A Avenue
EDMONTON, AB
T5R 5E3

Dear Mr. Okrainec

As per your letter of October 6, 1987 please find the following information as you requested:

Year One		Year Two		Year Three	
Females	Males	Females	Males	Females	Males
37	2	26	1	29	1

Sincerely

MEDICINE HAT COLLEGE
SCHOOL OF DIPLOMA NURSING

Karen Halvorsen

Karen Halvorsen, R.N., M.N.
Department Head, Nursing

cah

299 COLLEGE DRIVE S.E. ● MEDICINE HAT, ALBERTA T1A 3Y6 ● (403) 529-3811

MOUNT ROYAL COLLEGE
4825 Richard Road S.W., Calgary, Alberta, Canada T3E 6K6 240-6111

Department of Nursing and Allied Health
Faculty of Community and Health Studies

September 15, 1987

Gary D. Okrainec, R.N., M.Ed.
14327 - 92A Avenue
EDMONTON, Alberta
T5R 5E3

Dear Mr. Okrainec:

Your request for data collection from the nursing students enrolled in the Mount Royal College Program was reviewed by the Policy and Positions Committee and met with our approval. It is necessary that you follow the Research and Project Guidelines that presently exist at Mount Royal College. I am enclosing a copy of these guidelines for your review.

Also enclosed is a copy of the 1987-1988 enrollment figures by gender and year of program to assist you in terms of numbers of questionnaires required.

I wish you every success in completing your research.

Sincerely,

Deborah B. Robichaud, R.N., B.N.
Chairman, Policy and Positions

DBR/bt
Encl.

Calgary's Community College

RED DEER COLLEGE

Box 5005
Red Deer, Alberta T4N 5H5
Telephone (403) 342-3300

08 September 1987

Gary D. Okrainec
14327 - 92 A Avenue
EDMONTON, Alberta
T5R 5E3

Dear Gary:

Our 1987 enrolment by gender and year of program is:

	Female	Male
First Year	76	6
Second Year	64	2

We are prepared to distribute your questinnaire to the students, but you should understand that their participation must be on a voluntary basis. We will be interested in the results of your study and if available would appreciate knowing the aggregate responses of our students as well as the total student group.

Best wishes in your work.

Sincerely,

L. Irene Gataint

L. Irene Gataint
Chairperson
Nursing Department

LIG:dt

university
of Alberta
hospitals

8440 - 112 Street
Edmonton, Alberta
Canada T6G 2B7
(403) 432-8822

September 22, 1987

Gary D. Okrainec
14327 - 92A Ave.,
Edmonton, Alta.,
T5R 5E3

Dear Gary:

With reference to your letter of September 1, 1987, we are pleased to provide you with the following information.

✓ Class Dec. '87 - 75 students presently enrolled
6 male
69 female

Class Apr. '88 - 74 students presently enrolled
6 male
68 female

Class Dec. '88 - 72 students presently enrolled
7 male
65 female

Class Apr. '89 - 79 students presently enrolled
12 male
67 female

Class Dec. '89 - 83 students presently enrolled
7 male
66 female

We hope that this information will be of some assistance to you.

Yours sincerely,

M. Koster
for
Jeanette Florence
Registrar

JF*mk

Walter C. Mackenzie
Health Sciences
Centre

Aberhart Centre

Mewburn Veterans
Centre

University Hospitals
Outpatient Residence

University Hospitals
Education and
Development Centre

University Hospitals
Patient Support
Centre

ROYAL ALEXANDRA
HOSPITALS
SCHOOL OF NURSING

November 4, 1987

Mr. Gary Okrainec
14327 92 A Avenue
Edmonton, Alberta
T5R 5E3

Dear Mr. Okrainec:

This will confirm the female/male student population for the classes currently enrolled at the Royal Alexandra Hospitals School of Nursing.

Year III - 94 female; 6 male.
Year II - 101 female; 6 male.
Year I - 105 female; 12 male.

Sincerely,

Gloria Bauer

Gloria Bauer, R.N., M.Ed.
Director - Nursing Education

GB/mjd

10415 - 111 AVENUE * EDMONTON, ALBERTA * T5G 0B8 * TELEPHONE (403) 477 - 4920

MISERICORDIA HOSPITAL
16940-87 AVE EDMONTON ALBERTA CANADA T5R 4H5 (403) 484-8811

November 16, 1987

Mr. G. Okrainec
14327 - 92A Avenue
Edmonton, AB
T5R 5E3

Dear Mr. Gary Okrainec:

RE: ENROLLMENT IN NURSING PROGRAM - SEPTEMBER, 1987

The following enrollment information is provided as requested in your letter of November 5, 1987.

YEAR	FEMALES	MALES	TOTAL
First	83	7	90
Second	69	3	72
Third	81	1	82

Should you require additional information, please feel free to contact me.

Sincerely,

H. Smyk
Miss H. Smyk
Director, School of Nursing

HS:cn

Foothills Hospital

SCHOOL OF NURSING
1441 - 29 St. N.W.
CALGARY, ALBERTA T2N 4J8
(403) 270-1446

87-09-04

Mr. Gary D. Okrainec
14327 - 92A Avenue
Edmonton, Alberta
T5R 5E3

Dear Mr. Okrainec:

I would be very pleased to help you arrange for distribution of your questionnaires. Your study is an interesting and badly needed one and I look forward to your results.

We have the following students in attendance -

	Class of '88	Class of '89	Class of '90	
Males	1	2	4	= 7
Females	97	103	132	= 332

In January 1988 there will be 4 young men returning to the school to repeat the latter part of the first year with the class of 1990. We would be pleased to send them out questionnaires so that they could become part of your sample.

Sincerely,

Marvel Miller Evelyn

Marvel Miller Evelyn
Co-ordinator Student Affairs

mme/gg

THE
UNIVERSITY
OF CALGARY

FACULTY OF NURSING

2500 University Drive N.W., Calgary, Alberta, Canada T2N 1N4

Telephone (403) 220-6262

1987-09-21

Gary D. Okrainec, R.N., M.Ed.
14327 - 92 A Avenue
Edmonton, Alberta
T5R 5E3

Dear Mr. Okrainec:

Your request to distribute questionnaires to students at The University of Calgary has been forwarded to me in my position as Assistant Dean, Research and Scholarly Development. It has been our custom to have all requests for student involvement be primarily the student's decision as to whether or not they would participate.

Given that it is 1987, may I suggest that you consider changing No. 1, Section A, from the word "sex" to "gender." I think you will find that you will get more appropriate answers and a better rate on that question than the way it is currently worded. As a person who reviews a number of research proposals, may I ask you to just re-read your questionnaire asking yourself the question whether or not your questions as currently worded are unbiased and non-directive in their answers. As you have probably already discovered, the developing of a questionnaire is a very tricky endeavour. I am also wondering whether or not you have pilot-tested this particular instrument perhaps in another province. Please be in touch. If I can be of any assistance to you, please do not hesitate to call me at 220-4645 on Tuesdays to Fridays. My joint appointment in practice is all day on Mondays. I will look forward to hearing from you with this further information.

Sincerely,

M. Colleen Stainton

M. Colleen Stainton, R.N., D.N.Sc.
Assistant Dean, Research and Scholarly Development
Associate Professor, Faculty of Nursing

IBM26/104MCS/lh

cc: Ms. Karen-Lee Olson

PS: As per your request, I am attaching a listing of our 1987-1988 enrollment figures by gender and year of program.

FACULTY OF NURSING
THE UNIVERSITY OF CALGARY
1987 - 1988 ENROLLMENT FIGURES

	MALE	FEMALE	TOTAL
1st year	3	61	64
2nd year	4	59	63
3rd year	3	56	59
4th year	0	55	55
	10	231	241

* * * * *

University of Alberta
Edmonton
Faculty of Nursing

Canada T6G 2G3
3-120 Clinical Sciences Building

October 15, 1987

Mr. Gary D. Okrainec, R.N.
14327 - 92A Avenue
Edmonton, Alberta
T5R 5E3

Dear Gary:

RE: Perceptions of the Nursing Profession held by Male and Female Nursing Students

The above named thesis proposal and questionnaire have been reviewed and approved by our Ethical Review Committee.

Listed below are the 1987-88 enrollment figures by gender and year of program.

	Number of Males	Total
First Year	6	101
Second Year	6	99
Third Year	3	80
Fourth Year	1	84

Best of luck with your thesis. If I can be of any further assistance, please do not hesitate to ask.

Sincerely,

Patricia E.B. Valentine, R.N., Ph.D. Candidate
Associate Professor & Associate Dean
Undergraduate Education

PEBV/jlh

APPENDIX B

Cover Letter

Dear Nursing Student,

I am a graduate student in Education at the University of Alberta and am currently working on my master's degree thesis. The focus of my study is on the personal characteristics, career interests and levels of educational satisfaction of male and female nursing students in the Province of Alberta. I am seeking your cooperation in providing me with information for the study by completing the enclosed questionnaire.

The questionnaire will take approximately 30 minutes to complete. All respondents to the questionnaire will be anonymous and your replies will be kept confidential. No one connected with your nursing school will see your answers.

If you think it would help me to better understand your answer, you may write an explanation along side any answer that you wish. Please be honest in your answers. I want to know what you really think. If there should be a particular question which you do not wish to answer, leave it blank.

Your assistance in completing this questionnaire is very much appreciated.

I sincerely thank you for your cooperation.

Yours Truly,

Gary D. Okrainec R.N.

APPENDIX C

Questionnaire

A SURVEY ABOUT MALE AND FEMALE NURSING STUDENTS

FOR DATA
ANALYSIS
USE ONLY

- - - 1
1 4

Instructions to Respondents

1. DO NOT place your name on the questionnaire.

2. There are several parts to this questionnaire, and each part has specific instructions about how you should respond. Please read all the instructions carefully.

SECTION A

DIRECTIONS: Please circle the number of the most appropriate response for questions #1 - #2.

1. What is your sex?

Male.. 1
Female...................................... 2

5

2. What is your marital status?

Single...................................... 1
Married..................................... 2
Divorced or Separated....................... 3
Widowed..................................... 4

6

DIRECTIONS: Please write the appropriate numbers in the space located to the right of questions #3 - #5.

3. What is your present age in years? 3. ______. 7 - 8

4. At what age did y[illegible]r your nursing program? 4. ______. 9 - 10

5. At about what age did you first think about becoming a nurse? 5. ______. 11 - 12

DIRECTIONS Please Circle the appropriate number for questions #6 - #13.

FOR DATA ANALYSIS USE ONLY

6. Did you train for any other occupation or career before entering your nursing program?

No	1
Yes	2

13

If YES, what career or occupation was it? (specify) ____________________.

7. How many jobs have you held since High School graduation other than part-time or temporary employment?

None	1
1	2
2	3
3	4
4	5
5 or more	6

14

8. What is the highest level of postsecondary education that you attained excluding your nursing program?

No postsecondary education	1
Some postsecondary education but did not complete program	2
Certificate	3
Diploma	4
Baccalaureate Degree	5
Masters Degree	6
Other (Please specify on line below)	7

____________________.

15

Indicate on the following line your Major Field of Study.

____

9. How were your grades/marks during your last year of high school?

Near or at the top of your class	1
Above average but not the top of the class	2
About average	3
A little below average	4
Quite below average	5

16

FOR DATA
ANALYSIS
USE ONLY

10. In what type of nursing program are you presently taking your basic nursing education?

Hospital School of Nursing Diploma Program 1
Community College Diploma Program............... 2
University Baccalaureate Degree Program......... 3

17

11. In what year of your program are you presently enrolled?

First Year..................................... 1
Second Year.................................... 2
Third Year..................................... 3
Fourth Year.................................... 4

18

12. In order to meet the admission requirements for your nursing program, did you complete your high school matriculation by attending Grades 10, 11 and 12 in three consecutive years?

Yes.. 1
No... 2

19

If No, how did you complete your high school matriculation?

(Circle the response which most reflects how you completed your high school)

Through correspondence......................... 1
By attending high school full-time for an additional term(s)..................... 2
By attending high school on a part-time basis... 3
By taking an evening course(s)................. 4
By taking summer session course(s)............. 5
Other (specify)________________________________. 6

20

13. When you were between 6 and 16 years of age, which setting best describes the location where you lived the most?

On a farm...................................... 1
In the country but not on a farm............... 2
In a village (fewer than 2,500 people)......... 3
In a town (Between 2,500 and 24,999 people).... 4
In a small city (25,000 to 99,999 people)...... 5
In a large city (500,000 to one million or more people)................................... 6
Other specify__________________________________. 7

21

DIRECTIONS For questions # 14, 15 and 16, please provide the following information by checking, ☑ , the appropriate category.

14. What is the highest level of education attained by your parents? (Mark only one check-mark for each parent)

			FATHER	MOTHER	FOR DATA ANALYSIS USE ONLY
1.	Elementary School	1.	☐	☐	
2.	Junior High School	2.	☐	☐	
3.	Some High School	3.	☐	☐	
4.	Completed High School	4.	☐	☐	22 - 23
5.	Vocational Training	5.	☐	☐	
6.	Certificate	6.	☐	☐	
7.	Diploma	7.	☐	☐	24 - 25
8.	Some University (No Degree)	8.	☐	☐	
9.	Baccalaureate Degree	9.	☐	☐	
10.	Masters Degree	10.	☐	☐	
11.	Doctoral Degree	11.	☐	☐	
12.	Other (Please specify on line below)	12.	☐	☐	

______________________________.

15. Indicate the major occupation of each of your parents. If your parents are retired or deceased give their last major occupation. (Mark only one check-mark for each parent)

			FATHER	MOTHER	
1.	Homemaker	1.	☐	☐	
2.	Farmer	2.	☐	☐	
3.	Teacher	3.	☐	☐	
4.	Managerial	4.	☐	☐	
5.	Clerical	5.	☐	☐	
6.	Sales	6.	☐	☐	26 - 27
7.	Self-employed	7.	☐	☐	
8.	Construction	8.	☐	☐	
9.	Tradesman	9.	☐	☐	28 - 29
10.	Transportation	10.	☐	☐	
11.	Service	11.	☐	☐	
12.	Technology	12.	☐	☐	
13.	Professional	13.	☐	☐	
14.	Other (Specify) ____________	14.	☐	☐	

16. From the list below, please indicate which relatives in your immediate or extended family trained as Registered Nurses. (Check-mark ALL items that apply)

1.	No relatives in nursing	1.	☐	30
2.	Sister or sisters	2.	☐	31
3.	Brother or brothers	3.	☐	32
4.	Mother	4.	☐	33
5.	Father	5.	☐	34
6.	Aunt or aunts	6.	☐	35
7.	Uncle or uncles	7.	☐	36
8.	Female cousin or cousins	8.	☐	37
9.	Male cousin or cousins	9.	☐	38
10.	Grandmother(s)	10.	☐	39
11.	Spouse	11.	☐	40
12.	Sister(s)-in-law	12.	☐	41
13.	Other (Please Specify)	13.	☐	42

______________________________.

17. Which of the following people were most influential in your choice of a career in nursing? (Please circle the appropriate number to the right of the response)

		FOR DATA ANALYSIS USE ONLY
A relative who is/was a nurse......................	1	
A relative who never was a nurse....................	2	
A friend who is/was a nurse.........................	3	43
A friend who was never a nurse......................	4	
No individual in particular.........................	5	
Other (specify)________________________________....	6	

18. Place a check-mark, ✓, next to the reason(s) listed below that have been important factors in your decision to enter nursing. (Please check as many as they apply to you)

1.	It provides an opportunity to help people.	1. ______	44
2.	It provides a good steady income.	2. ______	45
3.	It provides a higher income than other occupations or careers I considered.	3. ______	46
4.	The work is more important than other careers I considered.	4. ______	47
5.	I had a desire to improve my status in life.	5. ______	48
6.	A nurse has dignity and prestige.	6. ______	49
7.	The scientific aspects of nursing appeal to me.	7. ______	50
8.	Good job opportunities.	8. ______	51
9.	Opportunities for advancement are good.	9. ______	52
10.	It was the best opportunity at the time for me.	10. ______	53
11.	I am interested in the health care field.	11. ______	54
12.	It provides an opportunity to work with other professionals.	12. ______	55
13.	It provides an opportunity to help others through my religious beliefs.	13. ______	56
14.	I wanted to increase my medical knowledge after being a Registered Nursing Assistant.	14. ______	57

19. In the space below, please write any other reason(s) which influenced your decision to enter nursing.

20 In your opinion, do you feel that the number of men entering the nursing profession will increase in the future? (Please CIRCLE the appropriate response item)

YES..	1	
NO...	2	58
Undecided....................................	3	

Please explain the reason for your above response.

SECTION B

FOR DATA ANALYSIS USE ONLY

1. How would you describe your overall interest in your nursing education? (Please circle the number to the right of the response item)

Very Interested.. 1
Interested.. 2
Undecided.. 3
Disinterested... 4
Very Disinterested.. 5

59

Use the following list of subjects to answer questions #2 and #3.

1. Psychology
2. Sociology
3. Microbiology
4. Anatomy and Physiology
5. Disease Pathophysiology
6. Human Growth and Development
7. Family Studies
8. Nursing Management
9. Pharmacology
10. History/Foundations of Nursing
11. Nutrition
12. Religious Studies
13. Medical Nursing
14. Fundamentals of Nursing
15. Surgical Nursing
16. Operating Room
17. Psychiatric Nursing
18. Obstetrical Nursing
19. Intensive Care
20. Research Methology
21. Statistics
22. Geriatric Nursing
23. Pediatric Nursing
24. Other (specify) ______
25. Other (specify) ______
26. Other (specify) ______

DIRECTIONS Please write the number corresponding to the subjects listed above on the following lines below. (Include up to three (3) subjects)

2. Which subject(s) in your nursing program are you most interested in?

1. ______ 60 - 61
2. ______ 62 - 63
3. ______ 64 - 65

3. Which subject(s) in your nursing program are you least interested in?

1. ______ 66 - 67
2. ______ 68 - 69
3. ______ 70 - 71

4. Since you began your nursing education, how often have you seriously thought of giving up nursing? (CIRCLE the appropriate response to the right)

Frequently.. 1
Occasionally... 2
Seldom... 3
Never... 4

72

FOR DATA
ANALYSIS
USE ONLY

DIRECTIONS For questions #5 and #6, please circle the appropriate number to the right of each response item.

- - - 2
1 4

5. Using the scale below, indicate your interest in the nursing prattice (clinical) component of your nursing program.

SCALE

1 - Strongly Agree
2 - Agree
3 - Undecided
4 - Disagree
5 - Strongly Disagree

1. I am more interested in the clinical aspects than the theoretical aspects of nursing.	1 2 3 4 5	5
2. After a few weeks on the clinical area, the days/evenings become routine and I begin to feel bored.	1 2 3 4 5	6
3. I believe that more time should be spent on the clinical area as a student nurse.	1 2 3 4 5	7
4. I learn more on the clinical area through practical experience than from classroom or laboratory instruction.	1 2 3 4 5	8

6. According to the scale below, how often do you spent time with your classmates/instructors in each of the following activities?

SCALE

1 - Very Frequently
2 - Frequently
3 - Occasionally
4 - Seldom
5 - Never

1. I discuss course content informally with my classmates outside of school.	1 2 3 4 5	9
2. I have discussions with my peers about different careers in nursing.	1 2 3 4 5	10
3. After classes, I discuss my clinical experiences informally with my peers.	1 2 3 4 5	11
4. I participate in leisure time activities with my peers after school hours.	1 2 3 4 5	12
5. I meet with my classroom instructors informally to discuss course content.	1 2 3 4 5	13
6. I meet with my clinical instructor informally to discuss clinical experiences.	1 2 3 4 5	14

SECTION C

1. If you were given a choice of five (5) nursing functions from the list below to perform on the clinical area, which of the following functions would you choose to perform regularly?

DIRECTIONS CIRCLE the numbers of the (5) five nursing functions from the list below.

FOR DATA ANALYSIS USE ONLY

Nursing Functions

1. perform surgical dressing changes
2. hold a lonely patient's hand
3. evaluate staff
4. bathing patients
5. administer injections
6. interpret medical treatments to patients
7. monitor Intravenous Therapy
8. process physician's orders
9. comfort a patient's family
10. take vital signs
11. chart on patients
12. pre-operative teaching
13. talk with a dying patient
14. play cards with patients
15. schedule patients for tests
16. collect specimens
17. going on rounds with physicians
18. filling out the assignment sheet for the next nursing shift
19. feed patients
20. give patient report to next nursing shift
21. read to patients
22. attending staff meetings

15 – 16
17 – 18
19 – 20
21 – 22
23 – 24

2. If given the opportunity, how likely are you to consider nursing administration as a possible career goal? (Please CIRCLE the number of your most appropriate response)

Definitely Consider	1
Probably Consider	2
Undecided	3
Probably Not Consider	4
Definitely Not Consider	5

25

3. Ten years from now, what working status do you feel you will have in the nursing profession? (CIRCLE the number to the right of the response)

Permanent Full-Time Status	1
Temporary Full-Time Status	2
Permanent Part-Time Status	3
Temporary Part-Time Status	4
Casual Status	5
I will not be working ten years from now	6

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The following list provides a summary of the Major specializations within the nursing profession. Use the number which corresponds to a particular specializations in answering questions #4 and #5.

1. General Surgery
2. Adult Intensive Care
3. Coronary Care
4. Operating Room/Recovery Room
5. General Medicine
6. Geriatrics/Rehabilitation
7. Orthopedics
8. Urology
9. Burn/Isolation Unit
10. Neuro-Surgery
11. Cardiology
12. Obstetrics
13. Gynecology
14. Newborn Nursery
15. Emergency Ward
16. Nursing Administration
17. Public Health Nursing
18. Child Psychiatry
19. Adult Psychiatry
20. Pediatrics
21. Occupational Health
22. Private Duty Nursing
23. Inservice Education
24. Respiratory Nursing
25. Nursing Education
26. Other (specify) ________________.

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DIRECTIONS Write the appropriate response in the space provided to the right of each question. Write the number which corresponds to a particular specialization in the lines below.

4. What areas in nursing are you most likely to aspire to in the future?

a) First Choice ______. 27 - 28

b) Second Choice ______. 29 - 30

5. What areas in nursing would you definitely not consider upon graduation from your School of Nursing?

a) First Choice ______. 31 - 32

b) Second Choice ______. 33 - 34

SECTION D

1. If you had the opportunity to choose again knowing what you do now, would you again choose to enter nursing? (Please CIRCLE the appropriate number to the right of the response item)

Definitely Yes.................................... 1
Probably Yes...................................... 2
Undecided... 3
Probably No....................................... 4
Definitely No..................................... 5

35

2. Would you recommend nursing as a career to males? (Please CIRCLE the appropriate number to the right of the response item)

Definitely Yes.................................... 1
Probably Yes...................................... 2
Undecided... 3
Probably No....................................... 4
Definitely No..................................... 5

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3. Would you recommend nursing as a career to females. (Please CIRCLE the appropriate number to the right of the response item)

Definitely Yes.......................................	1	
Probably Yes.......................................	2	
Undecided.......................................	3	37
Probably No.......................................	4	
Definitely No.......................................	5	

4. How difficult is nursing education compared to what you had expected? (Please CIRCLE your most appropriate response which corresponds to the number on the right)

Definitely more challenging........................	1	
Somewhat more challenging........................	2	
As expected........................	3	38
Somewhat easier than expected........................	4	
Definitely easier than expected........................	5	

5. DIRECTIONS Using the Satisfaction Scale below, respond to each item by circling the appropriate number to the right of each item.

SATISFACTION SCALE

1 – Very Satisfied
2 – Satisfied
3 – Neutral
4 – Dissatisfied
5 – Very Dissatisfied

TO WHAT EXTENT ARE YOU SATISFIED WITH EACH OF THE FOLLOWING?

1. Your overall satisfaction with your present nursing program.	1 2 3 4 5	39
2. The policies and regulations within your School of Nursing.	1 2 3 4 5	40
3. The quality of classroom instruction you receive.	1 2 3 4 5	41
4. The amount of clinical experience you receive.	1 2 3 4 5	42
5. The types of courses offered by your School of Nursing.	1 2 3 4 5	43
6. The responsibilities afforded to student nurses in the clinical area.	1 2 3 4 5	44
7. The objectivity of nursing instructors in grading your clinical abilities.	1 2 3 4 5	45
8. The amount of study time needed to successfully prepare for examinations.	1 2 3 4 5	46
9. The number of examinations you receive in nursing theory and clinical practice.	1 2 3 4 5	47
10. Your relationship with your nursing instructors at your School of Nursing.	1 2 3 4 5	48
11. Your relationship with your peers within your nursing program.	1 2 3 4 5	49
12. The evaluations you receive from your nursing instructor(s).	1 2 3 4 5	50
13. The availability of laboratory equipment to practice nursing skills.	1 2 3 4 5	51
14. The length of your nursing program in terms of years.	1 2 3 4 5	52
15. The amount of time-off, breaks and vacation time at your nursing school.	1 2 3 4 5	53
16. The availability of counsellors to discuss personal or academic concerns.	1 2 3 4 5	54

6. In general, how do you feel about your choice of a nursing career? (Please CIRCLE the appropriate number to the right of the response item)

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I feel it is the only career that could really satisfy me.. 1

I feel it is one of several careers that can be almost equally satisfying........................ 2 55

I feel that I will find it a satisfying career after graduation.................................. 3

I do not feel that it is going to be a really satisfying career for me........................... 4

SECTION E

DIRECTIONS Please circle the number to the right of each response item.

1. Using the SCALE presented, how would you personally rate male and female nurses with regards to the characteristics listed below?

SCALE

1	2	3	4	5
Female Nurses Superior	Female Nurses Somewhat Superior	Both Sexes Equal	Male Nurses Somewhat Superior	Male Nurses Superior

1. Natural aptitude for nursing	1 2 3 4 5	56
2. Caring attitude	1 2 3 4 5	57
3. Understanding for people	1 2 3 4 5	58
4. Empathy for others	1 2 3 4 5	59
5. Career advancement	1 2 3 4 5	60
6. Ability to express feelings	1 2 3 4 5	61
7. Cooperativeness	1 2 3 4 5	62
8. Dovotion to the profession	1 2 3 4 5	63

2. Who do you think is more suited for bedside nursing? (Please CIRCLE the number to the right)

Male nurses.. 1
Female nurses.. 2 64
It does not make any difference.......................... 3

3. Whom do you think female nurses prefer to work with? (Please CIRCLE the number to the right)

Male nurses.. 1
Female nurses.. 2 65
It does not make any difference to them.................. 3

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4. Whom do you think male nurses prefer to work with? (Please CIRCLE the number to the right)

Males nurses....................................	1	66
Female nurses....................................	2	
It does not make any difference to them........	3	

DIRECTIONS Please answer the following questions in the spaces provided below.
If additional space is required, please use the back of the page.

5. What personal qualities do you think best describes a female nurse?

6. What personal qualities do you think best describes a male nurse?

7. Please make any additional comments that you feel are relevant for an analysis of nursing as a career.

THANK YOU

END OF QUESTIONNAIRE

APPENDIX D

Follow-up Letter

Dear Nursing Student,

A short time ago a questionnaire was sent to male and female nursing students in Alberta to study factors related to your perceptions of nursing education and nursing as a career. My purpose in writing is to ask you to return the completed questionnaire, if you have not already done so.

Your response is of vital importance to the success of the study and your participation is greatly appreciated. Please accept my sincere thanks if you have already returned the questionnaire. If you have not found the time to respond, could you please return the completed questionnaire as soon as possible?

The respondents to the questionnaire are not known to the researcher, and all information received will be used for research purposes only. If you have perhaps lost or misplaced the questionnaire that was sent to you, please let me know and I will gladly send you another copy.

Thank you for your cooperation.

Yours Sincerely,

Gary D. Okrainec

APPENDIX E

Comments by Male and Female Nursing Students

COMMENTS BY MALE NURSING STUDENTS

1. Nursing is a great career for satisfaction and advancement, yet like other careers, the potential all lies in the desire and work you put into it.

2. A male has to be mentally able to cope with going to school and working with women. He has to handle the stigma and stereotyping of a "male" nurse. If he can not do this he will not make it.

3. Nursing is an under paid, and under staffed profession. Public recognition is nil. Personal satisfaction is what makes it worth while.

4. I think any student in nursing should come to these realizations prior to even entering nursing: nursing is shift work--nights and evenings; nurses have to work weekends and holidays; and nurses' wages stop at a certain level--no matter how good you are.

5. There is a need for more male instructors to help pave the way for more male nursing students.

6. I am glad I choose nursing, but it was much harder than I thought it would be. I feel good about succeeding.

7. In nursing, you must give a lot of understanding and support to patients, plus have good manual dexterity. You can enjoy nursing as long as you are interested in talking with and listening to people and their families.

8. Nursing offers opportunities for travel and career advancement.

9. Nursing is an excellent career choice because of the satisfaction in helping others and making a living doing it.

10. I do not believe that there are such things as female nurses and male nurses.

11. Nursing is a good career choice for anyone who enjoys poeple--both sick or well.

12. I do not think that sex makes a difference as a nurse. What matters is your own personal reasons for becoming a nurse. I am sure that there are good and bad nurses of both sexes. I think that it is an advantage to patients that there are both male and female nurses.

13. Nursing has moved in the last few years to be a theoretical and very professional discipline. Although this good, the danger is to lose the humble servant's role which, in the past has greatly benefited the healing process.

14. Nurses are over-trained. They are taught things which they are not allowed to practice.

15. Nursing is a good career, but it involves a lot of politics and individual bias. Sometimes, it is not what you know but who you know.

16. I feel that nurses should, before taking a degree program, work as a registered nurse in a hospital setting for at least a couple of years to give them a better basic understanding of nursing. A person must be able to leave problems at work and not take them home where they can interfere with your personal life.

17. Due to the versatility of males with regards to physical strength, I feel that they are more suited to areas where more strength is required, especially in geriatric care.

18. Most people would wonder why a male would choose nursing over medicine.

19. Because there is a very significant difference in the proportion of the sexes in the profession, I feel this can bias some responses. For example, most female nurses would like to work with male nurses simply because male nurses are few and far between.

COMMENTS BY FEMALE NURSING STUDENTS

1. I think it is noble for men to enter the faculty of nursing. Even still, I have a stereotyped image of nursing as being a female dominant career.

2. Nurses have to be special people. They have to combine their knowledge in both physical and mental care as well as trying to limit their biases.

3. I wish more males would enter the nursing program. In my experience, male nurses often have the tact that a group of gossippy females do not possess.

4. To find nursing satisfying, one must integrate their scientific knowledge with good social interactional skills. One must concentrate while in the clinical area to keep the care patient-centered, as it is quite easy to fall into an efficient routine.

5. I would not feel comfortable as a patient to have a male nurse or student nurse look after me. For me, a male doctor is OK, but I would never let a male nurse look after me.

6. We should look at the stress that all nurses are experiencing in this field and we should find a way to reduce or avoid over-stress.

7. I think it's great that more male nurses are entering the field. Nursing is a fantastic career to be shared by both sexes.

8. I feel that it is more the individual and his or her degree of dedication and caring rather than their sex which is important.

9. I believe that there is a lot more to nursing than meets the eye. Nursing really encompasses so much that it is almost mind boggling.

When in training, a lot is expected of you. I think that it will be easier when you graduate and work only on one nursing unit.

10. Personalities vary among men just as in women. There are people from both sexes who are not cut out to be nurses.

11. I'm not against male nurses, I enjoy having my male classmates around. I feel, however that nursing really is a female occupation. Female nurses are accepted in all areas of health care where a male nurse may not be.

12. I think male nurses, even as students, are given more room to be themselves especially with their sense of humor than are females. They are subject to the same standards, but are disapproved of less for being themselves.

13. In my experience in psychiatric nursing, females took a lot more responsibility than male nurses. Male nurses broke up fights, restrained patients and distracted female nurses. Some of them have passed their work load on to others or knew a female would come along to pick up after them and make things all better. However, the males in this program seem more responsible than others I have met.

14. I feel that a mixed staff promotes a better working atmosphere and for more work getting done.

15. To keep nursing challenging, I think variety is important -- for example, moving to different areas within nursing and continuing on in one's education. I personally would get burned out if I were to remain on the same specialty unit indefinitely.

16. If anyone is interested in nursing and is thinking of a nursing career, they should make sure that they are the type of people who like to get along with others. Also, patience is an important factor.

17. Male nurses offer a different point of view.

18. Nursing can be a very rewarding career but your heart must be in the right place.

19. I have great respect for the men in my class and hope that they are successful in nursing.

20. I think that nursing can be handled equally well, whether the nurse is a male or female.

21. It is a career that everyone should be exposed to because it is a field that many people do not understand.